Final

Site 30, Daycare Center
Record of Decision/Remedial Action Plan

Naval Station Treasure Island
Treasure Island, San Francisco, California

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ACRONYMS AND ABBREVIATIONS

§	Section
ARAR	applicable or relevant and appropriate requirement
Basin Plan	Bay Basin water quality control plan
Bay	San Francisco Bay
BERA	Baseline Ecological Risk Assessment
bgs	below ground surface
Cal/EPA	California Environmental Protection Agency
CCSF	City and County of San Francisco
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	chemicals of concern
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
DDT	dichlorodiphenyltrichloroethane
DoD	Department of Defense
DTSC	Department of Toxic Substances Control
EBS	environmental baseline survey
EC	engineering control
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
ERA	ecological risk assessment
ESD	explanation of significant difference
FFSRA	Federal Facility Site Remediation Agreement
FOSL	Finding of Suitability to Lease
FS	feasibility study
HEAST	Health Effects Assessment Summary Tables
HHRA	human health risk assessment
HI	hazard index
HSAA	Hazardous Substances Account Act
HSC	Health and Safety Code
IC	institutional control
IR	Installation Restoration
IRIS	Integrated Risk Information System
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter

NAVFAC SW	Naval Facilities Engineering Command Southwest
NAVSTA TI	Naval Station Treasure Island
Navy	Department of the Navy
NBAR	Nonbinding Allocation of Responsibility
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
ng/kg	nanograms per kilogram
O&M	operations and maintenance
PA/SI	preliminary assessment/site inspection
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PP	Proposed Plan
PRG	preliminary remediation goal
PRP	potentially responsible party
PPRTV	Provisional Peer-Reviewed Toxicity Values
RAB	Restoration Advisory Board
RAO	remedial action objective
RAGS	Risk Assessment Guidance for Superfund
RAP	Remedial Action Plan
RAWP	Remedial Action Work Plan
Reuse Plan	Draft Naval Station Treasure Island Reuse Plan
RfD	reference dose
RI	remedial investigation
RME	reasonable maximum exposure
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SLERA	screening-level ecological risk assessment
SVOC	semivolatile organic compound
SWRCB	State Water Resources Control Board
TCRA	time-critical removal action
TDS	total dissolved solids
TEQ	toxic equivalent
TI	Treasure Island
TPH	total petroleum hydrocarbons
VOC	volatile organic compounds
Water Board	San Francisco Bay Regional Water Quality Control Board
YBI	Yerba Buena Island

1.0 DECLARATION

This Record of Decision (ROD)/Remedial Action Plan (RAP) documents the selected remedial actions for Installation Restoration (IR) Site 30, Daycare Center, Naval Station Treasure Island (NAVSTA TI), San Francisco, California. The ROD/RAP serves as a legal document that certifies the remedy-selection process for the site and was carried out in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the State of California Health and Safety Code (HSC), and the Hazardous Substances Account Act (HSAA), Section (§) 25356.1. It also provides a substantive summary of the technical rationale and background information contained in the Administrative Record. As a technical document, the ROD/RAP provides information necessary for determining the engineering components of the remedy. It also outlines the remedial action objectives (RAOs) and cleanup levels for the selected remedy, and is a key tool for communication with the public.

Section 1 provides an overview of the ROD/RAP and includes specific information such as site name and location, purpose of the document, summary of site conditions, selected alternative, and statutory determinations.

1.1 SITE NAME AND LOCATION

In 1993, NAVSTA TI was designated for closure under the Base Closure and Realignment Act of 1990. In 2002, in an effort to facilitate environmental cleanup, the Department of the Navy (Navy), in consultation with the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC), the San Francisco Bay Regional Water Quality Control Board (Water Board), and the U.S. Environmental Protection Agency (EPA) Region IX, designated the Daycare Center area as IR Site 30. This ROD/RAP addresses Site 30.

During the environmental baseline survey (EBS), NAVSTA TI was divided into a number of parcels. Site 30, which is part of Treasure Island (TI) Parcel T094, was undeveloped until 1985, when a portion of the parcel was developed by the Navy for a child care facility. The child care facility was operated by the Navy until NAVSTA TI closed in 1997. After the closure of the naval station, the property was leased under the Finding of Suitability to Lease (FOSL) Zone 1D to the City and County of San Francisco (CCSF) on July 29, 1997 (PRC and Uribe 1997). Kidango renovated and reopened the facility as a daycare center on March 17, 2003. In April 2002, a 1989 as-built drawing was discovered indicating that the Navy Public Works Center installed an 8-inch water line down the middle of 11th Street. A note on the as-built drawing for the water line project identified an "old trash dump" within the western portion of the water line excavation along 11th Street between Avenues D and E (Shaw 2003). Subsequently, a multi-phase investigation and removal action was conducted beginning in May 2002 to determine the nature and extent of the buried debris (Shaw 2003; 2004). Based on the findings of the early phases of this investigation, the Navy designated a portion of Parcel T094 as IR Site 30 on September 6, 2002 (Shaw 2003).

1.2 STATEMENT OF BASIS AND PURPOSE

This decision document presents the basis for the selected remedy for Site 30, Daycare Center, at NAVSTA TI. The remedy was selected in accordance with CERCLA, as amended by the SARA and the NCP. This decision document satisfies all requirements of a ROD under CERCLA and is based on the Administrative Record for this site. In addition, the decision was made in accordance with the State of California HSAA codified in Chapter 6.8 of the California HSC. It is the Navy's intent that this document meets the requirements of HSC § 25356.1, which is a State requirement for RAPs at remedial sites; however for the purpose of this ROD, § 25356.1 is not considered an applicable or relevant and appropriate requirement (ARAR). The "Statement of Reasons" and the "Nonbinding Allocation of Responsibility" (NBAR) required by the HSAA are presented in Appendix A and Section 3.4.

In 1992, the Navy entered into a Federal Facility Site Remediation Agreement (FFSRA) with the State of California that stipulates the type, scope, and schedule of environmental work to be conducted at NAVSTA TI. The FFSRA identifies the regulatory agencies responsible for oversight of all related work at NAVSTA TI. These agencies include Cal/EPA DTSC and the Water Board. The FFSRA is scheduled to be updated annually in the site management plan.

The Navy, with the concurrence of DTSC and the Water Board as indicated by their signatures, has selected engineering controls (ECs) combined with institutional controls (ICs) as the remedial alternative to address risk posed by dioxins in soil at Site 30. Although not a signatory agency, the EPA has reviewed all major documents and concurs with the selected alternative. This ROD/RAP is supported by the Administrative Record for this selected alternative, which is located at the Information Repositories at TI Building 1, Room 161, 410 Palm Avenue, Treasure Island, San Francisco, California, and the San Francisco Public Library in the Government Publications Section, 100 Larkin Street, San Francisco, California. The Administrative Record index for Site 30 is presented in Appendix B.

This ROD/RAP describes how the selected remedy satisfies environmental regulations and how each remedial alternative was evaluated against the nine criteria for remedy selection. Information supporting the selected remedy is contained in the Administrative Record file for this site. The ROD/RAP also includes a responsiveness summary, which describes the public participation activities conducted and provides responses to comments received during the public comment period.

1.3 ASSESSMENT OF THE SITES

The response action selected in this ROD/RAP is appropriate to protect the health of potential human and ecological receptors from releases of hazardous substances into the environment.

1.4 DESCRIPTION OF THE SELECTED REMEDY

The Navy, with the concurrence of the State of California, has selected ECs combined with ICs as the selected remedy for Site 30. The remedy addresses the principal threats by preventing exposure to potentially contaminated soils beneath the Daycare Center building, and would allow Site 30 to be used in its current and future use as a daycare center.

Environmental data collected between 2002 and 2004 were used to determine the extent of contamination in soil and groundwater and to evaluate potential risks to the environment. During these investigations, soil and groundwater were sampled for chemical analysis and the results were evaluated to determine the risk they might pose to human and ecological receptors.

Based on the information and data evaluated as part of the remedial investigation (RI) for Site 30, the site does not pose an unacceptable risk for the current and future use as a daycare center. The risk for daycare center children and adults was below the risk management range both with and without the asphalt and concrete pad (i.e., Site 30 Concrete Pad) adjacent to the daycare center building. The human health risk associated with the commercial/industrial and residential alternative land use scenarios were within the risk management range. The selected remedy would allow for current and future use of the daycare center to continue, and would use ICs and ECs to maintain the building slab in order to ensure that the slab continues to serve as an exposure prevention barrier for daycare center children and adults to potential contamination at the site. ICs would ensure that potential commercial/industrial and residential receptors were protected from contamination beneath the Site 30 Concrete Pad and building slab by prohibiting any future activities that may disturb or alter the concrete pad and building slab without prior notification and written approval from DTSC. Detailed risk information is provided in the RI report (SulTech 2006b).

After the property is transferred from the Navy, if the transferee chooses to remove the building slab and concrete pad to facilitate future development, the transferee would need to secure DTSC's written approval for removal or waiver of the restriction in the ICs. To obtain Navy and regulatory agency approval for removal or waiver of the restriction in the ICs, the transferee will (1) conduct additional investigation to evaluate the risk from any contamination that may be present beneath the building slab and concrete pad and (2) conduct remediation if the risk evaluation indicates that additional remediation is necessary.

1.5 STATUTORY DETERMINATIONS

The selected remedies satisfy the statutory requirements of CERCLA because they promote protection of human and ecological receptors at Site 30.

ICs will be imposed at Site 30 to prevent possible future exposure to potential contaminants in soil beneath Building 502. This remedy has good short-term and long-term effectiveness, but will not reduce the mobility, volume, or toxicity of the potentially hazardous constituents in soil. The selected remedy is also cost-effective. However, because the selected remedy may leave contaminants on site above levels that allow for unlimited use and unrestricted exposure, a statutory review will be conducted five years after the remedy is in place. The review will evaluate whether the remedy continues to be sufficiently protective of human health and the environment.

1.6 ROD/RAP DATA CERTIFICATION CHECKLIST

The following information required for a ROD in CERCLA is included in the decision summary section of this ROD/RAP:

CERCLA Checklist Item	Location
1. Chemicals of concern (COC) and their respective concentrations	Section 2.5 – Site Characteristics and Sampling History
2. Baseline risk associated with the COC	Section 2.7 – Summary of Site Risks
3. Remedial action objectives and the basis for these objectives (in lieu of cleanup goals)	Section 2.8 – Remedial Action Objectives
4. Source material constituting principal threats	Section 2.11 - Principal Threat Wastes
5. Current and reasonably anticipated future land-use assumptions and current and potential future beneficial uses of groundwater	Section 2.6 – Current and Potential Future Land and Resource Use
6. Potential land and groundwater use that will be available at the site as a result of the selected remedy	Section 2.12 – Selected Remedy
7. Estimated costs of the selected remedy	Section 2.12 – Selected Remedy
8. Key factors that led to selecting the remedy	Section 2.12 – Selected Remedy

The information required in a RAP by HSAA § 25356.1(e) can be found in the sections of the ROD/RAP listed below. In addition, HSAA § 25356.1(d) requires that RAPs include a statement of reasons setting forth the basis for the removal and remedial actions selected. The statement of reasons is located in Appendix A of this ROD/RAP.

HSAA Requirement	Location
1. Basis for the remedial action selected	Section 2.7.3 - Basis for Taking Action
2. Evaluation of each alternative considered and rejected	Section 2.9 – Description of Alternatives
3. Explanation for rejection of alternative remedial actions considered but rejected	Section 2.9 – Description of Alternatives
4. Evaluation of the consistency of the selected remedial action with the requirements of the federal regulations and the factors specified in subdivision (d), if those factors are not otherwise adequately addressed through compliance with the federal regulations	Appendix A – Statement of Reasons
5. A nonbinding preliminary allocation of responsibility among all identifiable potentially responsible parties (PRPs)	Section 3.4 – Nonbinding Allocation of Responsibility Appendix A – Statement of Reasons

Additional information can be found in the Administrative Record located in the Information Repositories for Site 30 at TI Building 1, Room 161, 410 Palm Avenue, Treasure Island, San Francisco, California, and the San Francisco Public Library in the Government Publications Section, 100 Larkin Street, San Francisco, California. The Administrative Record is maintained at the Naval Facilities Engineering Command Southwest (NAVFAC SW), San Diego.

1.7 DECLARATION STATEMENT AND AUTHORIZING SIGNATURE

Based on the evaluation of analytical data, historical information, assessment of risk, and site inspections described in the Final RI Report (SulTech 2006b), the Navy, with the concurrence of DTSC and the Water Board, has concluded that remedial action is required for Site 30, Daycare Center, at NAVSTA TI. The remedial action selected for Site 30 is ECs combined with ICs. Furthermore, hazardous substances are present in Site 30 soils at concentrations above acceptable risk levels; therefore, the 5-year review requirement of CERCLA § 121(c) is applicable.

8/5/09

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2.0 DECISION SUMMARY

This decision summary provides an overview of the installation and its history, environmental conditions, and potential risks from soils within Site 30 at NAVSTA TI, and the basis for the remedial action decision.

2.1 SITE NAME, LOCATION, AND DESCRIPTION

NAVSTA TI lies in San Francisco Bay (Bay), midway between San Francisco and Oakland, California. The Naval facility consists of two contiguous islands: TI, and Yerba Buena Island (YBI). Site 30, Daycare Center, consists of approximately 1.5 acres located in the northwest portion of TI (Figures 1 and 2).

2.2 SITE HISTORY AND ENFORCEMENT ACTIVITIES

TI was built in 1936 and 1937 on the Yerba Buena Shoals, a sand spit extending from the northwest point of YBI. The island was originally used for the Golden Gate International Exposition in 1939. In 1941, in response to a Navy request, the City of San Francisco leased TI, YBI, and the surrounding offshore area to the Navy for the duration of World War II. After the war, the City of San Francisco agreed to trade the deed of NAVSTA TI to the Navy in exchange for government-owned land south of San Francisco. The Navy operated TI for various Naval activities, including a medical clinic, fuel farm, service station, fire training school, waterfront facilities, ammunition storage, troop and family housing, personnel support, a brig, and a Navy and Marine Corps museum.

The IR program was established by the Department of Defense (DoD) in 1975 to identify, assess, characterize, and clean up or control contamination caused by historical disposal activities and other operations at military installations. The Navy IR program was formally established in 1986. The IR program is carried out in accordance with all Federal, State and local laws. The primary Federal laws are CERCLA and the SARA.

The preliminary assessment/site inspection (PA/SI) was completed at NAVSTA TI in April 1987 (Dames and Moore 1988). In 1993, NAVSTA TI was designated for closure under the Base Closure and Realignment Act of 1990. In 1994 and 1995, the Navy conducted a thorough EBS (ERM-West 1995). Naval operations were shut down in 1997, and reuse of the property is currently coordinated by the TI Redevelopment Authority.

During the EBS, NAVSTA TI was divided into a number of parcels. Site 30, which is part of TI Parcel T094, was undeveloped until 1985, when a portion of the parcel was developed by the Navy for a child care facility. The child care facility was operated by the Navy until NAVSTA TI closed in 1997. After the closure of the naval station, the property was leased under the FOSL Zone 1D to the City and County of San Francisco on July 29, 1997 (PRC and Uribe 1997). Kidango renovated and reopened the facility as a daycare center on March 17, 2003.

In April 2002, a 1989 as-built drawing was discovered indicating that the Navy Public Works Center installed an 8-inch water line down the middle of 11th Street. A note on the as-built drawing for the water line project identified an "old trash dump" within the western portion of the water line excavation along 11th Street between Avenues D and E (Shaw 2003). Subsequently, a multi-phase investigation and removal action was conducted beginning in May 2002 to determine the nature and extent of the buried debris (Shaw 2003; 2004). Based on the findings of the early phases of this investigation, the Navy designated a portion of Parcel T094 as IR Site 30 on September 6, 2002 (Shaw 2003).

Based on soil and groundwater data collected during a trench investigation in 2002, time-critical removal action (TCRA) in 2002/2003, and 2004 groundwater investigation, the Navy finalized the RI report for Site 30 in February 2006 (SulTech 2006b), followed by a feasibility study (FS) in November 2006 (SulTech 2006a).

There are no enforcement activities relating to Site 30. Environmental investigations associated with Site 30 are implemented under the installation-wide environmental program.

2.3 COMMUNITY PARTICIPATION

The community relations plan for NAVSTA TI was updated in May 2008 (Tetra Tech 2008). The Navy maintains an active community participation program through the TI Restoration Advisory Board (RAB). The RAB is made up of Federal, State, and local government representatives and citizens. Through regular meetings, the Navy informs the RAB of the progress of investigative activities and solicits input on planned investigations and actions. In addition, the Navy issues fact sheets and newsletters to keep the general public informed of IR activities at NAVSTA TI and follows CERCLA community relations requirements.

The FS report for Site 30 was completed in November 2006 (SulTech 2006a). The Proposed Plan (PP)/Draft RAP for Site 30, Daycare Center, was released to the public on September 23, 2008 (BAI 2008). The PP/Draft RAP was made available for a 30-day public review through both the Administrative Record located at NAVFAC SW, San Diego, California and the Information Repositories located at 410 Palm Avenue, Building 1, Room 161, Treasure Island, San Francisco, California, and the San Francisco Public Library in the Government Publications Section, 100 Larkin Street, San Francisco, California.

The notice of availability for the PP/Draft RAP was published in the *San Francisco Chronicle* on September 23, 2008. A public comment period was held through October 23, 2008. A public meeting was held on October 7, 2008 at the Casa de la Vista, Building 271, Treasure Island, San Francisco. At this meeting, representatives from the Navy, DTSC, and Water Board were available to answer questions about Site 30 at NAVSTA TI and describe the basis for the proposed remedial action. The Navy's response to comments received during the public meeting and the public comment period is included in the Responsiveness Summary (Section 3.0). The public notice, roster of pubic meeting attendees, and public meeting transcript are included in Appendix C.

These community participation activities fulfill the requirements of §§ 113(k)(2)(B)(i-v) and 117(a)(2) of CERCLA, § 300.430(f)(3) of the NCP, and the HSAA (HSC § 25356.1).

2.4 SCOPE AND ROLE OF RESPONSE ACTION

This ROD addresses soil at Site 30. The site has not been divided into operable units or otherwise subdivided. The selected remedial action, ECs combined with ICs will not affect remediation of nearby IR sites or overall remedial efforts at NAVSTA TI.

2.5 SITE CHARACTERISTICS AND SAMPLING HISTORY

The following sections provide a summary of the site characteristics and sampling history for Site 30.

2.5.1 Site Characteristics

Site 30 is bounded to the north by a line drawn 2 feet north of the daycare center fence, to the east by Avenue E (inclusive of Avenue E), to the south by 10th Street (excluding 10th Street), and to the west by the sidewalk of Avenue D (Figure 2). Site 30 is a relatively small site with an area of approximately 1.5 acres. The shortest distance between Site 30 and the Bay is approximately 1,200 feet. The site boundary of adjacent IR Site 31 was modified in February 2005 to include the sidewalks on the south side of 11th Street (Figure 2). Site 30 includes Building 502, which is currently used as a daycare center. The daycare center property is fenced and consists of the daycare center building surrounded by paved or landscaped areas (Figure 2). Access to the property is provided only through the front entrance of the daycare center. A wooden fence prevents unauthorized access to the daycare center play yard. The paved areas, which comprise the majority of the property, include walking paths, playground, storage areas, a parking lot, and a concrete and asphalt pad (i.e. Site 30 Concrete Pad). This pad was installed in January 2003 (Figure 2) as part of the TCRA at Parcel T094 (Shaw 2003). Small grass lawns and landscaped areas cover a smaller fraction of the property.

2.5.2 Ecological Setting

Generally, the terrestrial habitat of TI is of poor quality for wildlife species, since the island is predominantly covered by anthropogenic features. To increase the understanding of the habitat and conditions found at IR sites on both TI and YBI, a group of Navy and Federal, State, and regional agency representatives drove and walked through the IR sites on both TI and YBI. During the site tour conducted on June 3, 1994, the group characterized the habitat on TI as poor quality, with large areas of pavement, gravel, or buildings restricting use of the sites by receptors of concern (EPA 1994; Navy 1994). Additionally, the vegetated parts of TI consist of lawns and landscaped areas. Lawns generally provide poor habitat and the landscaped areas are planted with predominantly non-native species. Disturbance from vehicular traffic and widespread human presence also reduce the quality of the habitat for wildlife species at TI (Tetra Tech 1997).

2.5.3 Investigation History

This section describes the investigations performed at NAVSTA TI relevant to Site 30. The Final RI Report for NAVSTA TI Site 30 provides a more thorough discussion of these investigations (SulTech 2006b).

Exploratory Trenching and Subsurface Investigations at Site 30

An exploratory trenching and subsurface investigation was performed at Parcel T094 in 2002. This investigation was performed following the discovery of a note on the as-built drawing for the 11th Street water main. The note indicated a "trash dump" was present along 11th Street in the vicinity of the former NAVSTA TI child care facility (Shaw 2003). The exploratory trenching and subsurface investigation was performed in five phases and included Site 31 which is located immediately north of Site 30. Following the first phase, the additional phases were performed to fill data gaps identified in the earlier phases. Trenches were typically 5 feet long, a minimum of 4 feet deep, and 1 to 1.5 feet wide. All trenches were logged for debris, and soil samples were collected for analysis of polycyclic aromatic hydrocarbons (PAH), metals, organochlorine pesticides, polychlorinated biphenyls (PCBs), and dioxins. Many of the soil samples, particularly those collected for analysis for dioxins, were biased toward intervals where contamination was likely present, such as intervals with burnt debris.

Volatile organic compounds (VOC), total petroleum hydrocarbons (TPH), PAHs, pesticides, and metals were detected in soil samples from Site 30. VOCs were detected at concentrations below the residential preliminary remediation goals (PRGs). Concentrations of TPH were detected in some samples, but none were above the NAVSTA TI residential field screening levels (SulTech 2006a). PAHs were not present above the benzo(a)pyrene equivalent field screening level of 0.62 milligrams per kilogram (mg/kg). Pesticides were also detected at low concentrations at Site 30; however one sample, out of 98 samples analyzed, contained dichlorodiphenyl-trichloroethane (DDT) at a concentration of 2.24 mg/kg, which exceeds the EPA residential PRG of 1.7 mg/kg. PCBs were detected at concentrations below the residential PRG. Only three metals were detected in soil at concentrations above their residential PRG. Lead was present above the NAVSTA TI ambient concentration in 82 of the 152 samples, but was above the residential PRG in only three samples. Arsenic was present above the NAVSTA TI ambient concentration in one of 98 samples, and was above the residential PRG in all 98 samples. Vanadium was present above ambient concentrations in 23 of 98 samples, but only one sample had a concentration above the residential PRG.

All of the soil samples collected for dioxin analysis were biased towards intervals and locations where dioxins would most likely be encountered, such as burnt debris areas. Figure 3 provides the locations and results of soil samples collected for dioxins at Site 30. Six of 19 soil samples exceeded the EPA residential PRG of 3.9 nanograms per kilogram (ng/kg) for dioxin toxic equivalent (TEQ) (EPA 2004; SulTech 2006a). Two of these samples exceeded both the NAVSTA TI dioxin ambient concentration of 12.0 ng/kg and the field screening concentration of 19.0 ng/kg (Shaw 2003). These two samples were collected at depths of 4.0 and 5.0 feet below ground surface (bgs) from investigatory trenches excavated on the west side of Building 502. The purpose of the trenches was investigatory; however, the trenches were not extended further along Building 502 because of concerns regarding the undermining of the foundation. Other locations containing dioxin TEQ concentrations exceeding the residential PRG, but below the ambient level, are on the west side of Building 502 (Shaw 2003). Because burnt debris was visually identified in the two trenches adjacent to Building 502, the full lateral and vertical extent of dioxin contamination beneath Building 502 has not been determined (SulTech 2006a).

The results of the trenching investigation led the Navy to perform a TCRA on part of Site 30 and nearby portions of Site 31.

Time-Critical Removal Action at Site 30

A TCRA was performed at Site 30 in July 2002. The objective was to remove debris-contaminated soil from areas that 1) were not already covered with a substantial pavement barrier, 2) contained concentrations of lead exceeding the residential PRG of 400 mg/kg, or 3) contained dioxin TEQ concentrations exceeding the guideline of DTSC's School Property Evaluation and Cleanup Division of 19.5 ng/kg. A total of approximately 200 cubic yards of soil was removed from Site 30 during this removal action at the location shown on Figure 3. In addition, a 1,400 square foot concrete and asphalt pad (Site 30 Concrete Pad) was installed adjacent to the daycare center building (Shaw 2003) (Figure 3) in order to cover soil containing dioxin TEQ concentrations exceeding the 19.5 ng/kg guideline found adjacent to Building 502 at a depth between 4 and 5 feet bgs. Although the concrete pad was installed as an interim measure to prevent exposure to dioxins in soil, the results of the subsequent human health risk assessment (HHRA) determined the risk to daycare center receptors to be below the risk management range. Therefore, the concrete pad is not needed as an exposure prevention barrier for the daycare center receptors (SulTech 2006a).

Groundwater Microwell Installation

In 2004, eight direct-push borings were advanced and logged as part of an installation of temporary microwells to investigate groundwater at IR Sites 30 and 31 (SulTech 2004). Groundwater samples were collected from two temporary wells at Site 30 (30/31MW06 and 30/31MW08). One of these wells (30/31MW08) is located in Avenue E and is upgradient of both Building 502 and the Site 30 Time-Critical Removal Area. The other well (30/31MW06) was located in 11th Street, downgradient of both Building 502 and the Site 30 Time-Critical Removal Area (SulTech 2004). Groundwater sampling at Site 30 and adjacent Site 31 was conducted in May 2004 to assess the impacts to shallow groundwater from various known chemicals detected in the soil at the two sites (Shaw 2003; 2004).

Groundwater samples were analyzed for VOCs, semivolatile organic compounds (SVOC), TPH, pesticides, PCBs, metals, and dioxins. Two VOCs and three metals were detected in groundwater at Site 30. The VOCs were detected at concentrations below the maximum contaminant level (MCL). The concentrations of metals were below the applicable MCL or NAVSTA TI ambient concentrations (SulTech 2006a). SVOCs, pesticides, PCBs, and dioxins were not detected in groundwater.

2.6 CURRENT AND POTENTIAL FUTURE LAND AND RESOURCE USE

2.6.1 Land Use

According to the "Draft Naval Station Treasure Island Reuse Plan" (Reuse Plan) (CCSF 1996), the reuse of the portion of NAVSTA TI which includes Site 30, is designated as "Residential/Open Space/Publicly Oriented Uses". However, Table 7 of the Reuse Plan specifically identifies Building 502 for "Institutional Use" and the text of the plan indicates that the daycare center is part of the Reuse Plan (CCSF 1996). According to the plan, the following activities may be undertaken in the area:

- Theme parks
- Destination entertainment
- Hotel and resort
- Conference and meeting rooms
- Spectator sports and recreation areas (including golf)
- Community recreation
- Specialty restaurant and retail
- Performance, exposition, and display
- Festivals, markets, and fairs
- Film production and associated offices
- Museums and cultural institutions
- Neighborhood retail
- Employee housing for publicly-oriented uses

The Draft 1996 Reuse Plan describes the daycare center within the "Educational/Institutional Services" section and states "These users are generally very cost sensitive, and will be candidates for the reuse of existing facilities" (CCSF 1996). Recent comments by CCSF officials indicate the daycare center will be relocated; however Site 30 is expected to continue as a daycare center for the reasonably foreseeable future (Navy 2006).

2.6.2 Resource Use

As part of the November 1995 groundwater sampling event, groundwater samples from all 86 wells at NAVSTA TI were analyzed for total dissolved solids (TDS). Using the TDS criterion of 3,000 milligrams per liter to define potential sources of drinking water as specified by the State Water Resources Control Board (SWRCB), Resolution No. 88-63, potentially suitable drinking water at NAVSTA TI exists from the water table surface to an estimated depth of 33 feet bgs.

The minimum production criterion to define potential sources of drinking water is a well yield of more than 200 gallons per day (SWRCB 1988). Pump tests, well development rates, and hydraulic conductivity values from slug testing (5 to 16 feet per day) indicate NAVSTA TI wells can yield more than 200 gallons per day.

Under the Bay Basin water quality control plan (Basin Plan), all groundwater within the Bay Basin that meets the criteria of SWRCB Resolution No. 88-63 has a potential beneficial use for municipal or domestic supply (SWRCB 1988). The Water Board, however, completed a pilot beneficial use designation project for several groundwater basins in San Francisco and Northern San Mateo Counties, including NAVSTA TI and YBI (Water Board 1996). The report indicated that the use of groundwater for municipal and domestic supply at NAVSTA TI would be limited by (1) the small volume of fresh groundwater available, (2) the likelihood of saltwater intrusion, and (3) potential future ground improvements for stability (stone columns and dynamic compaction). Consequently, the report recommended that the Basin Plan be revised so that groundwater at NAVSTA TI is no longer designated as a potential municipal or domestic water supply. These recommendations apply to current and future use of groundwater resources at Site 30 at NAVSTA TI.

In a letter from the Water Board to the Navy, the Water Board provided its concurrence that groundwater at NAVSTA TI meets the exemption criteria in SWRCB Sources of Drinking Water Resolution 88-63, but retains its designation for potential agricultural, process, and industrial supply (Water Board 2001).

2.7 SUMMARY OF SITE RISKS

The following sections provide a summary of the human health and ecological risks for Site 30.

2.7.1 Human Health Risks

The HHRA results for Site 30 are summarized below, including the total reasonable maximum exposure (RME) cancer risks and noncancer hazard indices (HIs) (including background). Receptor scenarios evaluated in the risk assessment include current land use (current and altered site conditions), and alternative land use scenarios (commercial/industrial, resident, and construction worker).

Exposure Assessment

Under the exposure assessment, potential human populations and related exposure pathways were identified based on current and expected future uses of the land. This step also involved compiling or developing receptor-specific intake assumptions, estimating exposure point concentration (EPC), and estimating daily chemical intakes for each receptor. Together with chemical intakes, EPCs were used to estimate pathway-specific intakes (doses) for use in subsequent risk calculations.

The present use of Site 30 as a daycare center is considered the reasonably foreseeable use of Site 30. The receptor evaluated for the current use was a daycare child. Risk calculations for the daycare child were deemed to be protective of the daycare worker. Two scenarios were evaluated under current use: (1) current conditions and (2) altered site conditions consisting of removal of the Site 30 Concrete Pad adjacent to Building 502. Both scenarios assume the existing Building 502 remains and functions as an effective exposure prevention barrier to uncharacterized soils located below. Evaluation of alternative land uses included commercial/industrial, resident, and construction worker scenarios. A recreational user was not evaluated at the site because future reuse indicated other receptors were more appropriate.

The standard EPA methods were used to estimate EPCs for direct-contact exposures (for example, ingestion of soil), and the EPC was based directly on the measured chemical of potential concern (COPC) levels in soil. The standard EPA Risk Assessment Guidance for Superfund (RAGS) equations were applied to determine daily doses (EPA 1989). Daily doses represent an estimated amount of a COPC to which a hypothetical human receptor might be exposed and were estimated for each receptor and each complete and significant exposure pathway.

Toxicity Assessment

The toxicity assessment for the HHRA included identification of toxicity values used to characterize noncancer health effects and cancer risk, respectively. Method 1 calculations used federal-recommended toxicity values and Method 2 used state-recommended toxicity values.

For Method 1, toxicity factors recommended by EPA Region IX were compiled from EPA-approved sources following the recommended hierarchy:

- Integrated Risk Information System (IRIS) (EPA 2005).
- EPA's Provisional Peer-Reviewed Toxicity Values (PPRTV) presented in EPA Region IX's PRG table (EPA 2004).
- Other EPA and non-EPA sources, including Agency for Toxic Substances and Disease Registry (ATSDR) minimal risk levels (ATSDR 2004), Office of Environmental Health Hazard Assessment (OEHHA) online resource, "Toxicity Criteria Database" (OEHHA 2005), and EPA's Health Effects Assessment Summary Tables (HEAST) (EPA 1997b).

For Method 2, DTSC recommended the use of the most health-protective of Federal and OEHHA slope factors for evaluating cancer risks. To evaluate noncancer effects from inhalation exposures, inhalation reference doses (RfDs) or reference concentrations were compiled from IRIS, the OEHHA "Toxicity Criteria Database" (as reference exposure levels) (OEHHA 2005), or other EPA sources (PPRTVs, HEAST, or route extrapolated values), in decreasing order of priority.

RfDs were developed to evaluate noncancer effects, and cancer slope factors were developed to evaluate chemicals classified as known or potential human carcinogens (EPA 1989). In the event a chemical was considered to cause both cancer and noncancer adverse health effects, both slope factors and RfDs were listed for a chemical. Toxicity values were compiled for each COPC identified and cancer risks and noncancer adverse health effects were estimated.

Risk Characterization

The risk characterization step combines the results of the previously described steps to estimate cancer risks and noncancer effects (as HI). Because carcinogens and noncarcinogens manifest their effects through uniquely different mechanisms, adverse health effects are estimated separately for chemical carcinogens and noncarcinogens. For each receptor, cancer risks and HIs were estimated separately for each COPC and each complete exposure pathway. Cancer risk estimates and HIs were then summed across media and exposure pathways for a combined effect estimate. Results of the HHRA for Site 30 are summarized below and in Table 1.

- The risk to daycare center receptors is below the risk management range and the site does not pose an unacceptable risk (SulTech 2006b) both with and without the concrete pad adjacent to Building 502.
- The risk to the construction worker was below the risk management range. The human health risk calculated for construction workers is also protective of current utility workers who may visit the site on an infrequent basis to repair subsurface utility lines. The

construction worker evaluation, which assumes exposure of 1 year, is a conservative evaluation for the utility worker who is likely to be on site only for a few days. The risk was calculated assuming that the concrete pad has been removed. Therefore, no remedial actions are necessary for a current utility worker (SulTech 2006b).

- The risk associated with the residential alternative land use was within the risk management range, with a maximum risk of $1x10^{-5}$ and an HI of 1 for subsurface soil (defined as 0 foot bgs to groundwater). The risk to hypothetical commercial/industrial workers was calculated to be within the risk management range, with a maximum risk of 3×10^{-6} assuming exposure to subsurface soils. The risk was calculated assuming that the concrete pad has been removed. The primary risk driver for both residential and commercial/industrial scenarios was identified as dioxins.

Dioxins were identified as a risk driver for future commercial/industrial and residential exposures to combined surface and subsurface soil (0 ft bgs to groundwater). Risks from dioxins were estimated using a dioxin TEQ EPC of 32.1 ng/kg and were largely driven by two concentrations, 27.7 and 34.1 ng/kg, in samples collected from locations currently beneath the Site 30 concrete and asphalt pad at depths of 4 and 5 feet bgs, respectively. Only 4 of the dioxin TEQ concentrations for the remaining 17 samples in the combined surface and subsurface soil data set exceeded the EPA Region IX PRG for residential soil of 3.9 ng/kg (EPA 2004), but these concentrations were below the ambient soil dioxin TEQ level for NAVSTA TI of 12 ng/kg (DTSC 2004). Therefore, the potential cancer risks associated with alternative land use receptor scenarios are largely driven by dioxin TEQ concentrations at the two locations beneath the pad, as well as concentrations within ambient levels.

The potential for human health effects caused by lead is typically estimated based on blood-lead concentrations. LeadSpread modeling (DTSC 1999) was performed to evaluate blood-lead levels in a daycare center child, and adult and child residents. Blood-lead modeling results were below the target criteria (99_{th} percentile concentrations below 10 micrograms per deciliter) for all three receptors for modeled EPC. To evaluate potential deleterious effects from exposure to lead in soil for construction workers and commercial/industrial workers, EPCs were compared to the EPA Region IX PRG for industrial soil, 800 mg/kg, and were found to be well below this benchmark.

Contaminants of Concern for Site 30

In summary, the risk assessment identified no COCs for the current and planned use of Site 30 as a daycare center. Additionally, no COCs were identified for the construction worker scenario. Under the alternative land use scenarios for commercial/industrial or residential receptors, dioxin is the only designated COC for Site 30.

The RI report recommended a FS be performed to evaluate remedial alternatives that would ensure protection of human health in the event that Building 502 were to be demolished and the area redeveloped for residential or commercial/industrial use. The dioxin TEQ EPC used in the risk assessment was 32.1 ng/kg. The EPC was largely driven by two concentrations, 27.7 and 34.1 ng/kg, in samples collected from locations currently beneath the Site 30 concrete and asphalt pad at depths of 4 and 5 feet bgs, respectively. Only 4 of the dioxin TEQ concentrations for the remaining 17 samples in the combined surface and subsurface soil data set exceeded the

EPA Region IX PRG for residential soil of 3.9 ng/kg (EPA 2004), but these concentrations were below the ambient soil dioxin TEQ level for NAVSTA TI of 12 ng/kg (DTSC 2004). Dioxin concentrations beneath Building 502 are unknown. Dioxins were not detected in groundwater samples collected at Site 30.

Uncertainty Analysis

The HHRA included a number of uncertainties inherent in the risk assessment process. Depending on the type of uncertainty, impacts to HHRA results can include an over- or underestimation of cancer risks or HIs. The uncertainties for the HHRA at Site 30 are described in the RI report and summarized below.

Uncertainties were identified in association with four areas of the exposure assessment process: (1) selection of exposure scenarios, (2) selection of exposure pathways, (3) estimation of EPCs, and (4) selection of exposure variables used to estimate chemical intake. All uncertainties are expected to result in conservative estimates rather than underestimation of unforeseen human health risks. Details of the exposure assessment uncertainties are discussed in the RI report.

Uncertainties may arise from the use of Method 1 and Method 2 toxicity factors. Differences between Method 1 and Method 2 RME potential cancer risk and noncancer hazard estimates were only significant for the daycare center child for both of the exposure scenarios evaluated, direct contact exposures to surface soil (0 to 2 feet bgs) in the unpaved areas within the daycare center fenced area (current site conditions), and direct contact exposures to surface soil (0 to 2 feet bgs) in the unpaved areas as well as the area currently protected by the Site 30 Concrete Pad (altered site conditions) (Table 1). Although the Method 2 potential cancer risks estimated for daycare center children were up to three orders of magnitude greater than the corresponding Method 1 values, these differences did not have a significant impact on the risk assessment conclusions. Under current site conditions, the Method 1 and Method 2 RME potential cancer risk estimates were below the risk management range.

Under altered site conditions, the Method 1 RME potential cancer risk estimated for daycare center children was less than the risk management range; an RME potential cancer risk of 1×10^{-6} was estimated for Method 2 after rounding up to one significant figure. The differences were the result of the risk-based screening step in the COPC selection process for Method 1, which was not implemented in the COPC selection process for Method 2, as well as different EPA and DTSC opinions of the carcinogenic potential of naphthalene. As presented in the RI, no COPCs were selected under Method 1 from the two surface soil data sets evaluated for direct contact exposures for daycare center receptors because the maximum detected concentrations in these data sets were less than EPA Region IX PRGs for residential soil. As risk-based screening was not implemented in the COPC selection process for Method 2, the additional COPCs selected from the data sets for daycare center children contributed to the resulting difference in the cumulative cancer risks and hazard indices (Table 1). In addition, exposure to naphthalene via the indoor inhalation pathway contributed a chemical-specific cancer risk of 2×10^{-7} to the cumulative Method 2 cancer risks for daycare center children. Whereas a unit risk value for naphthalene is available from OEHHA for the quantitative estimation of potential cancer risks from inhalation exposures (OEHHA 2005) (used in Method 2 cancer risk estimates), no unit risk value for naphthalene was used in the Method 1 cancer risk estimates as EPA considers the available evidence for carcinogenicity insufficient for the derivation of a unit risk value (EPA 2005).

All remaining Method 1 and Method 2 potential cancer risks and noncancer HIs for alternative land uses were different by less than an order of magnitude (Table 1). Estimates of potential cancer risks for construction workers, residents, or commercial/industrial workers were uniformly within or below the EPA risk management range of 1×10^{-6} to 1×10^{-4} and noncancer HIs for these receptors were below or equal to the HI benchmark of 1 after application of either toxicity assessment. Therefore, any uncertainties pertaining to differences in preferred COPC selection criteria and toxicity criteria for the two methods were deemed to be immaterial to the conclusions of the HHRA.

In summary, the HHRA was developed based on a series of assumptions, almost all conservative, that are expected to result in overestimation of risks.

2.7.2 Ecological Risks

A Tier I screening-level ecological risk assessment (SLERA) for terrestrial receptors exposed to soil was performed at IR Sites 6, 12, 21, 24, 30, 31, 32, and 33 (SulTech 2007). Navy policy for conducting environmental risk assessments identifies a three-tiered approach that incorporates different levels of complexity. This approach consists of the following tiers: Tier I, SLERA; Tier II, Baseline Ecological Risk Assessment (BERA); and Tier III, evaluation of remedial alternatives. Sites identified in Tier I as posing potential unacceptable risks proceed to a Tier II BERA. The SLERA did not identify any ecological resources or processes at TI that needed to be protected or sustained. Based on the overall poor quality of the habitat on TI, the Navy does not recommend further evaluation of ecological risk in a Tier II assessment (SulTech 2007). The SLERA is described below.

Identification of Chemicals of Potential Ecological Concern

All detected inorganic and organic chemicals in soil, except for essential nutrients such as calcium, iron, magnesium, potassium, and sodium, were selected for evaluation as preliminary chemicals of potential ecological concern (COPECs) for IR Sites 6, 12, 21, 24, 30, 31, 32, and 33. Analytical data for soil samples (0 to 4 feet bgs) within the boundaries of each site collected between 1992 and 2005 were used for preliminary identification of COPECs.

Exposure Assessment

Exposure pathways and routes were evaluated during the SLERA. Figure 5 shows the potential ecological receptors and pathways for the sites studied in the SLERA.

Definitions of valuable ecological resources include those without which ecosystem function would be significantly impaired; those that provide critical resources; and those perceived by humans as valuable, such as endangered species (EPA 1997a, 1998; Navy 1999, 2004). TI is not a natural ecosystem; rather, it is a man-made island built from dredge material from the Bay. TI has never supported a natural ecosystem or provided habitat for valuable ecological receptors. Because of the artificial and disturbed nature of the sites, exposure to plants and invertebrates is limited to opportunistic species that can adapt to high disturbance regimes. Future exposure will also be limited to species adapted to urban, landscaped habitats because urban redevelopment is planned for each of the sites once TI has been transferred (CCSF 1996). Although the exposure pathway evaluation links site contaminants in soil to ecological receptors, it does not link ecologically valuable endpoints to contamination.

Habitat surveys conducted at Site 30 did not identify any ecological resources or processes without which ecosystem function would be significantly impaired. Based on the overall poor quality of the habitat on TI, no further evaluation of ecological risk is necessary in a Tier II assessment for Site 30.

Ecological Effects Assessment

Assessment endpoints are environmental characteristics that, if significantly impaired, would indicate a need for action by risk managers. Because of the poor-quality habitat, receptor use of TI is limited to opportunistic species that are adapted to urban environments. Loss of one or more of the species present on TI would not result in any disruption or change to the current ecosystem. However, because assessment endpoints are necessary to proceed to Step 2 of the SLERA, assessment endpoints were selected based solely on trophic levels present on TI and include urban species adapted to industrial and landscaped habitat.

Ecological Risk Characterization

In a SLERA, it is necessary to identify (1) what specifically is to be protected, and (2) which ecological resources and processes must be sustained and for what reason. TI is not a natural ecosystem; rather, it is a man-made island built from dredge material from the Bay. TI has never supported a natural ecosystem or provided habitat for ecologically relevant receptors. Future exposure will also be limited to species adapted to urban, landscaped habitats because urban redevelopment is planned for each of the sites once TI has been transferred (CCSF 1996).

The SLERA did not identify any ecological resources or processes at TI that needed to be protected or sustained. Based on the overall poor quality of the habitat on TI, no further evaluation of ecological risk in a Tier II assessment is necessary for Site 30. The SLERA fulfills the CERCLA requirement for conducting an ecological risk assessment (ERA) to assess threats to the environment for these sites.

2.7.3 Basis for Taking Action

The response action selected in this ROD is necessary to protect the public health or welfare from actual or threatened releases of hazardous substances into the environment. Specifically, the response action addresses risk posed by dioxin in soil to potential residential and commercial/industrial receptors. RAOs were developed to address this risk, as discussed below.

2.8 REMEDIAL ACTION OBJECTIVES

RAOs are medium-specific (soil, groundwater, or air) goals for protecting human health or the environment. According to EPA guidance, an RAO should specify (1) the COC; (2) exposure routes and receptors, and (3) an acceptable contaminant level or range of levels for each exposure route (i.e., remediation goals) (EPA 1988). The remedial goals are usually chemical concentration limits, which provide a quantitative means of identifying areas for potential remedial action, screening the types of appropriate technologies, and assessing a remedial action's potential for achievement of the RAO. Remedial goals are also the performance requirements and the main basis for measuring the success of the response actions.

The risk at the site for daycare center adults and children under the current and future use configuration as a daycare center, including the location under Site 30 Concrete Pad and unpaved areas, is below the risk management range of 1×10^{-4} to 1×10^{-6}. However, under alternative commercial/industrial and residential land use scenarios, the risk is within the risk management range. The only medium which presents a concern at Site 30 is soil adjacent to and beneath Building 502; therefore RAOs are developed only for soil.

Based on the potential for receptors to be exposed to soils containing unknown concentrations of dioxin beneath Building 502, the following RAOs were developed for Site 30:

- To protect potential future commercial/industrial and potential future residential receptors by preventing the ingestion and direct contact with soils containing dioxin TEQ above the previously established ambient dioxin TEQ of 12 ng/kg beneath and adjacent to Building 502.

- To protect the current daycare center receptor by preventing the ingestion of and direct contact with soils containing unknown concentrations above the previously established ambient dioxin TEQ of 12 ng/kg beneath Building 502.

In developing the RAOs for dioxin, the preliminary remedial goal is set at a dioxin TEQ concentration of 12 ng/kg, which is the ambient level established for NAVSTA TI (DTSC 2004). The uncertainties identified in the HHRA are likely to result in overestimation of risk at Site 30; therefore, the RAOs established for the site represent a conservative level of protection.

2.9 DESCRIPTION OF ALTERNATIVES

Based on the results of the RI, a FS was conducted to evaluate remedial alternatives for Site 30. The FS presented a screening of remedial technologies and general process options and developed three remedial alternatives for Site 30:

- Alternative 1: No Action
- Alternative 2: ECs Combined with ICs
- Alternative 3: Building Demolition, Excavation, and Off-Site Disposal at a Permitted Landfill

Each alternative is described below, followed by a comparison of the alternatives based on the nine EPA criteria.

2.9.1 Alternative 1: No Action

"No Action" implies no remedial action will be conducted on site. Under the No Action alternative, soil would be left in place without implementing any ICs, containment, removal, treatment, or other mitigating actions. The NCP requires the no action response be evaluated in every FS because it provides a baseline for comparison to the other remedial alternatives (40 Code of Federal Regulations [CFR] Subsection 300.430[e][6]). There are no costs associated with this alternative.

2.9.2 Alternative 2: Engineering Controls Combined with Institutional Controls

Remedial Alternative 2 uses a combination of ECs and ICs to prevent exposure to the contaminated soils beneath Building 502. The results of the risk assessment indicate that for the current and planned future use of Site 30 as a daycare center, the site-related risk is below the risk management range, even if the Site 30 Concrete Pad adjacent to Building 502 at Site 30 is removed. However, because the nature and extent of dioxin contamination beneath Building 502 has not been characterized, there is a need to prevent exposure to potentially contaminated soils beneath Building 502. Under remedial Alternative 2, the existing daycare center building slab would be maintained as an effective exposure prevention barrier for the current and planned future use as a daycare center. This concrete pad would not be maintained as an EC because contaminants beneath the pad do not pose a risk to current use of the site as a daycare center. ICs would be implemented to address risk from soil beneath the pad by prohibiting site occupants from removing or penetrating the Site 30 Concrete Pad, except when following specific guidelines to prevent the exposure to potentially contaminated soils. Provisions for making any required repairs to subsurface utilities beneath Building 502 would be provided. Annual inspections, documentation, and IC oversight will be coordinated with DTSC.

The following sections present the elements of Alternative 2 and describe the ECs and ICs used for this alternative. The estimated cost of this alternative is $782,000.

Engineering Controls

ECs considered for Site 30 include maintaining the existing daycare center building slab as an effective exposure prevention barrier. The plans for Building 502 indicate the existing daycare center building slab is 10.25 inches of concrete consisting of a 4-inch thick reinforced sub-slab, a 3.25-inch airfloor/concrete layer, and a 3-inch thick reinforced concrete layer over the airfloor/concrete layer (see Figure 6). Airfloor is an interlocking metal form which provides both ventilation and radiant heat. Beneath this rigid system are a 2-inch sand layer, a vapor barrier, a capillary water barrier, and a minimum of 9 inches of engineered fill (Navy 1982). The existing daycare center building slab is considered to be an effective EC because of its thickness, construction, and the presence of several layers of clean fill material immediately beneath the building slab which provides further separation between the slab and potentially contaminated soils. The ICs would require inspection, maintenance, and reporting of the Site 30 Concrete Pad and Building 502 building slab to ensure remedy compliance. The existing daycare center building slab is not likely to require maintenance to continue to function as an effective exposure prevention barrier; however, periodic inspections would be required to verify the slab's performance as an effective exposure prevention barrier. With regard to the adjacent Site 30 Concrete Pad, maintenance of this pad would not be required under current use as a daycare center, as risk under this scenario is below the risk management range. Risk to potential commercial/industrial or residential receptors would be managed through the ICs, as discussed below.

Institutional Controls

Alternative 2 would implement ICs to restrict site occupants from removing or penetrating the building slab or Site 30 Concrete Pad that act as exposure prevention barriers, except when following specific guidelines to prevent the exposure to potentially contaminated soils. Since the

daycare center is presently being used, provisions would be made to allow for utility repair (such as water or sewer repairs) which may be required as part of the general maintenance of the building. These measures would require all subsurface work within the known or potentially contaminated areas be performed using measures designed to prevent the exposure of the occupants and workers to potentially contaminated soil. The alternative land use scenarios would require the maintenance of the existing effective exposure prevention barrier (existing daycare center building slab and Site 30 Concrete Pad). After the property is transferred from the Navy, if the transferee chooses to remove the building slab and concrete pad to facilitate future development, the transferee would need to secure DTSC's written approval for removal or waiver of the restriction in the ICs. To obtain Navy and regulatory agency approval for removal or waiver of the restriction in the ICs, the transferee will (1) conduct additional investigation to evaluate the risk from any contamination that may be present beneath the building slab and concrete pad and (2) conduct remediation if the risk evaluation indicates that additional remediation is necessary.

Additional elements of Alternative 2:

- *A "Covenant to Restrict Use of Property, Environmental Restriction" to (1) prohibit any removal of the Building 502 slab, (2) require periodic inspection of the Building 502 and reporting of the inspection results, (3) provisions for making utility repairs, as necessary, (4) require remedial investigation and any necessary remediation beneath Building 502 upon building demolition and removal.*
- *A Notice and Restrictive Covenant included in a quitclaim deed from the Navy to the property recipient.*
- *A Remedial Action Work Plan (RAWP) including an operations and maintenance plan, developed as part of the Remedial Design, to specify the roles and responsibilities for implementing, monitoring, and enforcing the institutional controls, including soil management procedures and requirements that must be followed should future utility repairs or general building maintenance activities encounter potentially impacted soils beneath the building slab and concrete pad.*

2.9.3 Alternative 3: Building Demolition, Excavation, and Off-Site Disposal at a Permitted Landfill

Remedial Alternative 3, Building Demolition, Excavation, and Off-Site Disposal at a Permitted Landfill, is the active remediation alternative intended to meet the DoD requirement of evaluating an alternative which would result in "unrestricted" use of the site. This requirement is applicable when the FS evaluates alternatives which involve the use of land use controls (DoD 2001). The results of the risk assessment indicate that for the current and planned future use of Site 30 as a daycare center, the site-related risk is below the risk management range. However, Alternative 3 assumes removal of Building 502 and therefore addresses the concern from unknown possible dioxin TEQ concentrations beneath this building. Remedial Alternative 3 involves the demolition of the existing daycare center building (Building 502) and associated slab to allow for access to the potentially contaminated soil. The existing paved areas (e.g., sidewalks, parking lot) at the site, excluding Building 502 and concrete and asphalt pad installed in 2003, would not be removed as part of this alternative. The potentially contaminated soil

beneath Building 502 and the concrete and asphalt pad would then be delineated and all contaminated soil identified within these areas would be excavated and transported to a landfill for disposal. The excavation would then be backfilled with clean soil. Alternative 3 does not include the construction of a new daycare center. The cost for this alternative is estimated to be $2,086,000.

A temporary fence would be installed around the site to prevent unauthorized persons from entering the site during remedial action activities. The existing 10,800 square foot building would be demolished, and a soil investigation would be performed to determine the extent of dioxin contamination within the building footprint. For the purposes of developing a cost estimate for this alternative, it is assumed all soil beneath the entire 10,800 square foot building and the 1,200 square foot concrete and asphalt pad will require excavation to a depth of 6 feet.

The excavation depth was determined to be 6 feet bgs based on dioxin concentrations above the NAVSTA TI dioxin ambient level of 12.0 ng/kg detected at a maximum depth of 5 feet bgs. The soil beneath the concrete and asphalt pad is included in the cost estimate because the soil samples which have detected dioxin at concentrations above the ambient dioxin TEQ preliminary remedial goal are located beneath the concrete and asphalt pad. An estimated 3,120 cubic yards of building demolition debris would require disposal as nonhazardous waste at a permitted landfill. Based on excavation to 6 feet bgs, it is assumed an estimated 2,667 cubic yards (bank measure) of contaminated soil would be excavated and transported as a hazardous waste to an appropriately permitted landfill for disposal. The excavated area would be backfilled with clean soil and returned to approximately existing grades.

The intent of the remedial action described in Alternative 3 is to achieve unrestricted use of the site. It is assumed that following the completion of this alternative, the RAOs will have been achieved without the need for ECs and ICs. However, soils containing dioxin concentrations above the remediation goal may exist deeper than 6 feet bgs beneath Building 502. For the purpose of developing a cost estimate, the depth of 6 feet bgs was chosen based on the analytical results indicating elevated dioxin concentrations are present to a maximum depth of 5 feet bgs.

2.10 COMPARATIVE ANALYSIS OF ALTERNATIVES

The remedial action alternatives considered represent a range of distinct environmental restoration strategies that fulfill the RAOs associated with dioxin contamination in soil at Site 30. The alternatives were evaluated against the nine EPA criteria listed below:

- **Overall Protection of Human Health and the Environment** determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through ICs, ECs, or treatment.
- **Compliance with ARARs** evaluates whether the alternative meets Federal and State environmental statutes, regulations, and other requirements that pertain to the site.
- **Long-Term Effectiveness and Permanence** considers the ability of an alternative to maintain protection of human health and the environment over time.

- **Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment** evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and amount of contamination present.

- **Short-Term Effectiveness** considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.

- **Implementability** considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

- **Cost** includes estimated capital and annual operations and maintenance (O&M) costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

- **Community Acceptance** considers whether the local community agrees with Navy's analyses and preferred alternative. Comments received on the PP/Draft RAP are an important indicator of community acceptance.

- **Regulatory Approval** considers whether the State and other regulatory agencies agree with the Navy's analyses and recommendations, as described in the RI/FS and PP/Draft RAP.

These criteria are used to evaluate the cleanup alternatives proposed for this site. The first seven criteria are discussed in the following alternative comparison. The last two criteria were addressed through public comment and regulatory agency review periods. The final decision on the remedy for Site 30 was made by the Navy and the State regulatory agencies after receiving and evaluating the public input.

2.10.1 Overall Protection of Human Health and the Environment

Results of the HHRA indicate the site does not pose an unacceptable risk under present conditions with the existing daycare center building slab serving as an effective exposure prevention barrier. However, dioxin may be present in soil beneath Building 502 at concentrations high enough to represent an unacceptable risk and health hazard to daycare center receptors and hypothetical commercial/industrial or residential receptors, assuming the existing daycare center building slab is removed. Dioxin beneath the Site 30 Concrete Pad adjacent to Building 502 represents unacceptable risk to hypothetical commercial/industrial receptors and residents.

All alternatives would protect human health and the environment under the current and future use of the site as a daycare center; however, only Alternatives 2 and 3 are protective of human health under alternative land use scenarios. Alternative 1 does not protect the alternative land use scenario receptors against exposure to potential dioxin contamination beneath and adjacent to Building 502.

Since there are no enforcement or monitoring components associated with Alternative 1, this alternative provides no mechanisms to ensure its effectiveness in protecting human health and the environment and does not meet the threshold criteria. Alternative 2 employs ECs and ICs to ensure human exposure pathways remain incomplete by (1) requiring the existing daycare center building slab remain in place and be periodically inspected, and (2) requiring any alternative future reuse of the property maintain the existing daycare center building slab as an effective exposure prevention barrier and consider soil contamination beneath the Site 30 Concrete Pad. ICs would specify that any future plans to remove the building slab or Site 30 Concrete Pad would require RI and any necessary remediation. ICs for the site will also contain provisions for making utility repairs beneath the slab. Alternative 3 would remove any potentially contaminated soil, and the source for potential human health risk. Alternative 3 would allow for future unrestricted use of the site as commercial/industrial or residential without any further land use restrictions.

2.10.2 Compliance with Applicable or Relevant and Appropriate Requirements

Compliance with ARARs is also a threshold evaluation criterion. An alternative must either comply with ARARs or provide grounds for a waiver. There are no ARARs applicable to Alternative 1. Alternatives 2 and 3 are expected to meet the chemical-specific and potential action-specific ARARs identified in the FS Report.

2.10.3 Long-Term Effectiveness and Permanence

The residual contamination for Alternative 1 (No Action) and Alternative 2 (ECs Combined with ICs) is the same because no contamination is being removed or treated. However, the residual risk due to direct exposure to the contaminated soil beneath Building 502 is reduced by the implementation of the ECs and ICs for Alternative 2. Although these residual risks do not pose an unacceptable risk to human health or the environment based on the current and future use of the site as a daycare center, potential risks may exist from the direct contact and ingestion of potentially contaminated soil beneath the existing daycare center building slab if the integrity is compromised or destroyed. Alternative 1 provides no protection from these potential risks, whereas Alternatives 2 and 3 do provide protection from these potential risks.

No remedial action or implementation of ICs would be conducted under Alternative 1; therefore, Alternative 1 would not provide long-term effectiveness and permanence for preventing exposure to contaminated soil beneath the Site 30 Concrete Pad and potentially contaminated soils beneath the daycare center building.

Alternative 2 provides an adequate level of long-term effectiveness and permanence under current and future use as a daycare center and nonresidential alternative land use scenarios by requiring monitoring and reporting of the integrity of the existing daycare center building slab. The ICs may be removed or waived in the future after additional investigation and potential remediation, if necessary, is conducted to mitigate any risk due to contamination beneath the building slab and concrete pad. Alternative 2 provides permanence through the use of ICs, which may include restrictive covenants, negative easements, and deed restrictions. These ICs would transfer with the land and would be binding upon future owners and occupants of the

property. Procedures for implementing, monitoring, and enforcing the deed restrictions will be determined in the RAWP.

Alternative 3 provides a higher level of long-term effectiveness and permanence than Alternative 2 because potential contamination would be removed from under Building 502 and the associated pad and disposed of off-site at a permitted landfill.

2.10.4 Reduction of Mobility, Toxicity, or Volume through Treatment

None of the alternatives would reduce the mobility, toxicity, or volume of potential contamination through treatment. Alternatives 1 and 2 do not treat the potential contamination, or reduce its toxicity, mobility, or volume. Alternative 3 would remove the potential contamination from beneath Building 502 and the associated Site 30 Concrete Pad. Placing the material in an approved landfill would reduce the mobility of contaminants in the environment.

2.10.5 Short-Term Effectiveness

Alternatives 1 and 2 will not introduce a risk to the community or the environment in the short term, since no active treatment will be conducted. Alternatives 1 and 2 are effective in the short term because Site 30 poses no unacceptable risk and the anticipated future use of the site is the present use, as a daycare center. Alternative 2 is more effective than Alternative 1, because the ICs would prevent exposure to unknown dioxin TEQ beneath the building slab. Alternative 3 could introduce some risk to the community during field activities due to truck traffic; however, these risks could be mitigated through best management practices such as traffic control. Although the risk assessment indicates the risk to the construction worker is below the risk management range from contaminants present at the site, any construction or demolition poses some risks for workers. These construction-related risks can be mitigated through the use of best management safety practices. Alternative 3 field work is estimated to take 6 weeks to complete.

2.10.6 Implementability

All of the alternatives are technically feasible and readily implementable. Alternative 1 does not require any efforts to implement. Alternatives 2 and 3 are proven technologies, and it is unlikely that technical or administrative issues would delay implementing either of these alternatives. The materials and services necessary to implement Alternative 3 are readily available locally. All of the alternatives are considered to be equally implementable.

2.10.7 Cost

No costs are associated with Alternative 1. Alternative 3 has the highest overall costs (over $2,086,000). Alternative 3 is 2.7 times the cost of Alternative 2 ($782,000). The cost of Alternative 3 does not include the construction of a new daycare center. These order-of-magnitude cost estimates were prepared based on commercially available cost estimating tools and previous estimates (published and unpublished) for similar projects. Actual costs will depend on actual labor rates, productivity, the final project schedule, and other variable factors.

2.10.8 Community Acceptance and Regulatory Approval

Community acceptance and regulatory approval were solicited during the PP/Draft RAP process for the selected alternative. Community and state acceptance of the Navy's preferred alternative was addressed through meetings and formal response to comments, as summarized in Sections 2.3 and 3.0.

2.10.9 Comparative Analysis Summary

Under the current site configuration and current and future use as a daycare center, the site does not pose an unacceptable risk. The human health risk associated with the commercial/industrial and residential alternative land use scenarios were within the risk management range. This risk was based on the conservative assumption that the daycare center building slab, as an effective exposure prevention barrier, would prevent exposure to potentially contaminated soil. Alternative 2 would allow for current and future use of the daycare center to continue, and would use ICs to ensure the existing exposure prevention barrier (daycare center building slab) is periodically inspected to evaluate its integrity and to consider contamination beneath the Site 30 Concrete Pad regarding future development of the site. Alternative 3 would require the demolition of the existing daycare center building and slab to enable the potentially contaminated soil to be removed. The construction of a replacement daycare center, either on Site 30 or at another location, is not included as a component of Alternative 3.

Alternative 1 (No Action) provides the least degree of protectiveness in the event potentially contaminated soil exists beneath Building 502 at concentrations which would pose a threat to human health and therefore does not meet the threshold criteria. Alternative 2 (ECs Combined with ICs) and Alternative 3 (Building Demolition, Excavation, and Off-Site Disposal at a Permitted Landfill) would each protect human health and the environment and would each comply with ARARs.

Based on the comparative analysis described above and presented in Table 2, Alternative 2 has advantages compared to the other alternatives. Alternative 2 would prevent exposure to potentially contaminated soil beneath Building 502 and Site 30 Concrete Pad in both the short term and long term, and would allow Site 30 to be used in its current or future use as a daycare center, serving the community. The ICs may be waived or removed in the future after additional investigation and potential remediation is conducted to mitigate any risk due to contamination beneath the building slab and concrete pad. While Alternative 3 would prevent exposure to potentially contaminated soil beneath Building 502 by using active remediation (excavation and off-site disposal) to reduce risks for unrestricted commercial/industrial or residential reuse, the cost for this alternative would be 2.7 times as high and would require the demolition of the existing daycare center building.

2.11 PRINCIPAL THREAT WASTE

Principal threat wastes are those source materials considered to be highly toxic or highly mobile that cannot be reliably contained or that would present a significant risk to human health and the environment should exposure occur (EPA 1999). Principal threat wastes can include liquid source material, mobile source material, or highly toxic source material.

Hazardous substances have been identified at Site 30, however, these substances are considered to be low-level wastes because of their low concentrations and toxicity. Therefore, this remedy will meet the NCP's expectation "to use ECs such as containment for waste that poses a relatively low long-term threat" (40 CFR 300.430(a)(1)(iii)(B)).

2.12 SELECTED REMEDY

The rationale for the selected remedy, a description of the selected remedy, estimated remedy costs, and the expected outcomes of the selected remedy are described in detail below for contaminated soil at Site 30.

2.12.1 Rationale for the Selected Remedy

The Navy's selected remedy is Alternative 2, ECs combined with ICs. Alternative 2 would prevent exposure to potentially contaminated soils beneath Building 502 and Site 30 Concrete Pad in both the short term and long term, and would allow Site 30 to be used in its current and future use as a daycare center, serving the community. Alternative 2 would provide the most cost-effective remedial alternative that is adequately protective of human health. The primary rationale for selection of the remedies is to assure that human exposure to potential future receptors will be minimized. Alternative 1 was rejected because it would provide a lower degree of protection to potential human receptors at the site. Alternative 3 was rejected because the higher cost associated with excavation and removal are not warranted since the building slab provides an adequate barrier between potential receptors and any contamination that may be present.

2.12.2 Description of the Selected Remedy

The selected remedy, Alternative 2, will use ECs combined with ICs to prevent exposure to potentially contaminated soils beneath Building 502 and impacted soils beneath Site 30 Concrete Pad.

ECs will consist of maintaining the building foundation slab to prevent contact with potential dioxin contamination beneath the slab. The existing daycare center building slab would be maintained as an exposure prevention barrier. The existing slab is not likely to require maintenance to continue serving as an exposure prevention barrier; however, periodic inspections would be required to verify its integrity. The Site 30 Concrete Pad adjacent to Building 502 would not be maintained as an EC because contaminants beneath the pad do not pose a risk to current use of the site as a daycare center.

ICs will be implemented to address risk from soil beneath the Site 30 Concrete Pad to potential future users. ICs will restrict any removal or penetration of the Building 502 slab, except when following specific guidelines to prevent exposure to potentially contaminated soil. If utility repairs (such as water or sewer repairs) are required, measures would be implemented to prevent exposure of the occupants and workers to potentially contaminated soil. The ICs would require inspection, maintenance, and reporting of the Site 30 Concrete Pad and Building 502 building slab to ensure remedy compliance.

ICs will include:

- *A "Covenant to Restrict Use of Property, Environmental Restriction" to (1) prohibit any removal of the Building 502 slab, (2) require periodic inspection of the Building 502 and reporting of the inspection results, (3) provisions for making utility repairs, as necessary, (4) require remedial investigation and any necessary remediation beneath Building 502 upon building demolition and removal.*
- *A Notice and Restrictive Covenant included in a quitclaim deed from the Navy to the property recipient.*
- *A Remedial Action Work Plan (RAWP) including an operations and maintenance plan, developed as part of the Remedial Design, to specify the roles and responsibilities for implementing, monitoring, and enforcing the institutional controls, including soil management procedures and requirements that must be followed should future utility repairs or general building maintenance activities encounter potentially impacted soils beneath the building slab and concrete pad.*

Five-year reviews of the site conditions will be conducted to assure that the selected remedy is still protective of human health and the environment. The Navy is responsible for conducting the five-year reviews but may contractually arrange for a third party to assume responsibility for and perform the requisite five-year reviews.

After the property is transferred from the Navy, if the transferee chooses to remove the building slab and concrete pad to facilitate future development, the transferee would need to secure DTSC's written approval for removal or waiver of the restriction in the ICs. To obtain Navy and regulatory agency approval for removal or waiver of the restriction in the ICs, the transferee will (1) conduct additional investigation to evaluate the risk from any contamination that may be present beneath the building slab and concrete pad, and (2) conduct remediation if the risk evaluation indicates that additional remediation is necessary.

2.12.3 Summary of Estimated Remedy Costs

The estimated present-worth cost for the selected remedy is $782,000. Table 3 contains a breakdown of the cost estimate for the selected remedy. The information in Table 3 is based on the best available information regarding the anticipated scope of the selected remedy. Changes in the cost elements are likely to occur as a result of new information and data collected during the engineering design phase of the selected remedy. Major changes may be documented in the form of a memorandum in the Administrative Record file, an explanation of significant differences (ESD), or a ROD amendment. This is an order-of-magnitude engineering cost estimate that is expected to be within +50 to -30 percent of the actual project cost.

The detailed cost analysis for the selected remedy includes an estimation of both capital and O&M costs. The costs were estimated for 30 year duration. The capital costs primarily involve preparation and implementation of the RAWP and include regulatory review. The O&M costs involve periodic inspections, annual reporting, and 5-year reviews pursuant to CERCLA.

2.12.4 Expected Outcomes of the Selected Remedy

ECs combined with ICs on land use for Site 30 are expected to meet the RAOs by preventing direct contact with soil by potential human receptors. The ECs will assure maintenance of the building slab and ICs will establish land use control mechanisms and procedures to allow DTSC to enforce them.

2.13 STATUTORY DETERMINATIONS

The primary responsibility under Superfund is to select remedial actions that are protective of human health and the environment. CERCLA also requires that the selected remedial action comply with ARARs established under Federal and State environmental laws. The selected remedy must also be cost-effective and utilize permanent treatment technologies or resource recovery technologies to the maximum extent practicable. The statute also contains a preference for remedies that include treatment as a principal element.

The following statutory determinations are provided to (1) describe how the selected remedy satisfies the statutory requirements of CERCLA § 121 [as required by NCP § 300.430(f)(5)(ii)] and (2) explain the five-year review requirements for the selected remedy.

Alternative 2, ECs combined with ICs, is the preferred remedy for dioxins in soil at Sites 30. The following sections summarize how well this remedy meets the statutory requirements.

Protection of Human Health and the Environment

The remedy selected for dioxins in soil at Site 30 will adequately protect human health through maintenance of the building slab and land-use controls by preventing exposure to the contaminants in soil. The chemicals in soil do not pose an unacceptable risk to ecological receptors.

IC will prevent future exposure to the contaminants in soil at Site 30. Although IC is an effective and accepted approach for reducing risk from direct contact with contaminated materials, the potential exists that ICs would not be enforced; therefore, the long-term effectiveness is not as great as treatment. However, treatment has been determined to be impracticable for Site 30 because of the limited potential risk and high cost of removing and replacing the daycare center building.

ICs have additional long-term management requirements (such as record keeping), which are critical for maintaining the protectiveness of this alternative.

Compliance with ARARs

ECs and ICs are expected to meet the action-specific ARARs identified in Appendix A of the FS Report. The action-specific ARARs are primarily California HSC requirements for ICs. No chemical- or action-specific ARARs were identified in the FS for the selected remedy.

Cost-Effectiveness

The selected remedy has good cost-effectiveness, with an estimated capital cost of $322,100 to implement, O&M costs total $173,700, and approximately $285,700 for the five-year reviews, for a total present value of $781,500. Active removal of soil from the site would have associated capital costs of more than $2,000,000. The selected remedy achieves RAOs at a fraction of the cost of active treatment.

Use of Permanent Solutions or Innovative Treatment Technologies to the Maximum Extent Practicable

Risk is eliminated as long as controls are maintained. Because the receptor pathway is only controlled, the inherent hazard of waste remains. However, ICs to restrict future land use may be reliable through implementation of the future land-use plan, so the RAOs are likely to be achieved. Five-year review would be required because contaminants in soil would remain on site.

Preference for Treatment as a Principal Element

The selected remedy does not involve treatment of contaminants in soil, so it does not satisfy the statutory preference for treatment. However, the treatment options may be only marginally effective because of site-specific conditions and may produce more short-term exposure than the selected remedy.

Summary of Five-Year Review Requirements for the Selected Remedy

For sites where contaminants remain in place, the effectiveness of the remedy must be evaluated every five years for 30 years. In the case of the selected remedy at Site 30, this would include a site visit to ensure that the building slab and pad is intact and in good repair; and that deed or land-use restrictions are being administratively maintained. Costs are estimated to be $77,400 for each of six 5-year reviews.

2.14 DOCUMENTATION OF SIGNIFICANT CHANGES

The PP/Draft RAP for Site 30, Daycare Center, was released for public comment on September 23, 2008. The PP/Draft RAP identified the selected remedial alternative for Site 30. The public comment period ran from September 23, 2008 through October 23, 2008. No public comments were received. It was determined that no significant changes to selected alternative, as originally identified in the PP/Draft RAP, were necessary or appropriate.

3.0 RESPONSIVENESS SUMMARY

This section presents the Navy's responses to comments on the PP/Draft RAP for Site 30, Daycare Center, NAVSTA TI.

3.1 STAKEHOLDER ISSUES AND NAVY RESPONSES

In preparing this responsiveness summary, the Navy followed "A Guide to Preparing Superfund Proposal Plans, Records of Decisions, and Other Remedy Selection Documents" (EPA OSWER Directive 9200.1-23P, July 1999). The responsiveness summary summarizes the views of the public and support agencies and documents in the record how public comments were integrated into the remedial decision. The guidance (EPA 1999) suggests that the responsiveness summary be organized into two sections:

1. Stakeholder Issues and Lead Agency Responses: Summarize and respond concisely to major issues raised by stakeholders (for example, community groups, support agencies, businesses, municipalities, and potentially responsible parties [PRPs]), and

2. Technical and Legal Issues, if necessary.

The PP/Draft RAP for IR Site 30 was made available to the public on September 23, 2008, thereby initiating the 30-day public comment period. The public meeting for the PP/Draft RAP for Site 30 was held on October 7, 2008, in the Casa de la Vista, Building 271, at TI, California. The public comment period ran from September 23, 2008 through October 23, 2008. Copies of the newspaper notice that announced the public comment period and the location and time of the public meeting are included in Appendix C.

The PP/Draft RAP presented the selected alternative for Site 30 (BAI 2008). Federal and state regulatory agencies concur with the selected alternative. The purpose of the PP/Draft RAP and the public meeting was to provide the public with a concise summary of the site investigation and information used to support the Navy's preferred alternative. A transcript of the public meeting and an attendance roster are also included in Appendix C.

Based on the comments received from support agencies during the public comment period, there are no outstanding technical or legal issues for this ROD. Therefore, only the Stakeholder Issues and Lead Agency Responses section is included in this responsiveness summary. The guidance recommends that "If the lead agency determines that a point-by-point response to a set of comments is warranted, a separate comment/response document should be prepared". The Navy has concluded that a separate point-by-point response document is not warranted and has responded in this responsiveness summary to all comments submitted.

No verbal comments were received during the public meeting on the PP/Draft RAP for Site 30. No written comments were received during the public comment period. A copy of the transcript for the public meeting is provided as Appendix C of this ROD.

The California Department of Fish and Game submitted comments on the PP on October 30, 2008. The comments were received after publication of the PP. The comments and the Navy's responses are located in Appendix D. Appendix E contains comments received from the DTSC and Water Board on the Draft ROD/RAP, along with the Navy's response to those comments.

3.2 TECHNICAL AND LEGAL ISSUES

No technical or legal issues were identified during the public comment period.

3.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT

DTSC prepared an Initial Study to evaluate potential impact of the proposed project on the environment. The findings of the Initial Study indicate that the project would not have a significant effect on public health or the environment. Therefore, DTSC prepared a proposed Negative Declaration for the Site 30 cleanup. Both the Initial Study and proposed Negative Declaration were made available for review and comment during the public comment period. No comments were received during the comment period.

3.4 NONBINDING ALLOCATION OF RESPONSIBILITY

HSC § 25356.1(e) requires DTSC to prepare a preliminary NBAR among all identifiable PRPs. HSC § 25356.3(a) allows PRPs with an aggregate allocation in excess of 50 percent to convene an arbitration proceeding by submitting to binding arbitration before an arbitration panel. Based on available information regarding the former NAVSTA TI, DTSC determined that the Navy is a responsible party with aggregate alleged liability in excess of 50 percent of the costs of removal and remedial action pursuant to HSC § 25356.3.

The sole purpose of the NBAR is to establish which PRPs will have an aggregate allocation in excess of 50 percent and can therefore convene arbitration if they so choose. The NBAR, which is based on the evidence available to the DTSC, is not binding on anyone, including PRPs, DTSC, or the arbitration panel. If a panel is convened, its proceedings are de novo and do not constitute a review of the provisional allocation. The arbitration panel's allocation will be based on the panel's application of the criteria spelled out in HSC § 25356.3(c) to the evidence produced at the arbitration hearing. Once arbitration is convened, or waived, the NBAR has no further effect, in arbitration, litigation or any other proceeding, except that both the NBAR and the arbitration panel's allocation are admissible in a court of law, pursuant to HSC § 25356.7 for the sole purpose of showing the good faith of the parties who have discharged the arbitration panel's decision.

DTSC sets forth the following preliminary NBAR for the former NAVSTA TI: The U.S. Department of the Navy is allocated 100 percent responsibility.

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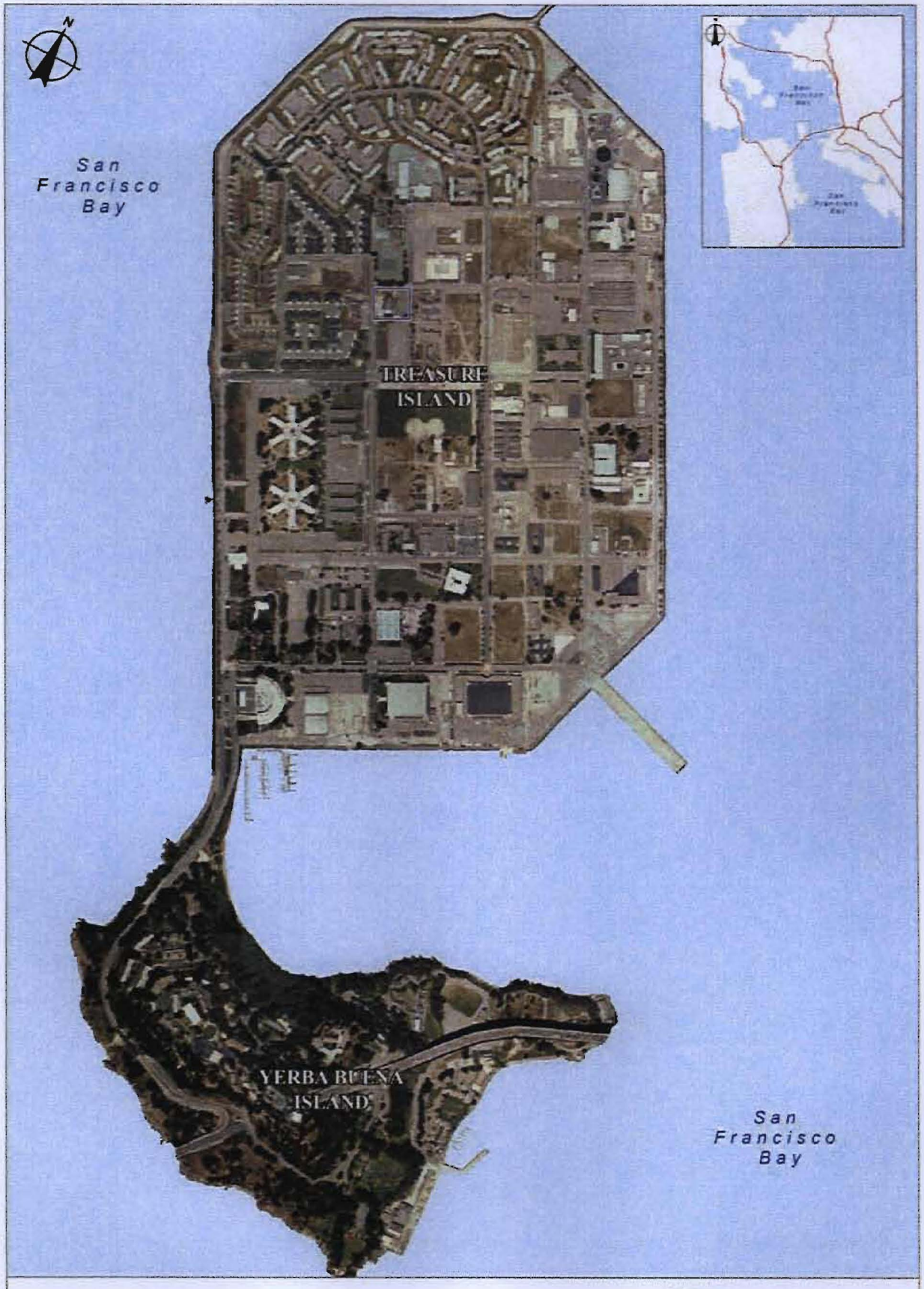
FIGURES



SITE 30 BOUNDARY

350 0 350 700
Feet

Note:
Aerial photograph taken by HJW Geospatial Inc. on February 18, 2003; photograph georeferenced by Tetra Tech.

BAI Barajas & Associates, Inc.

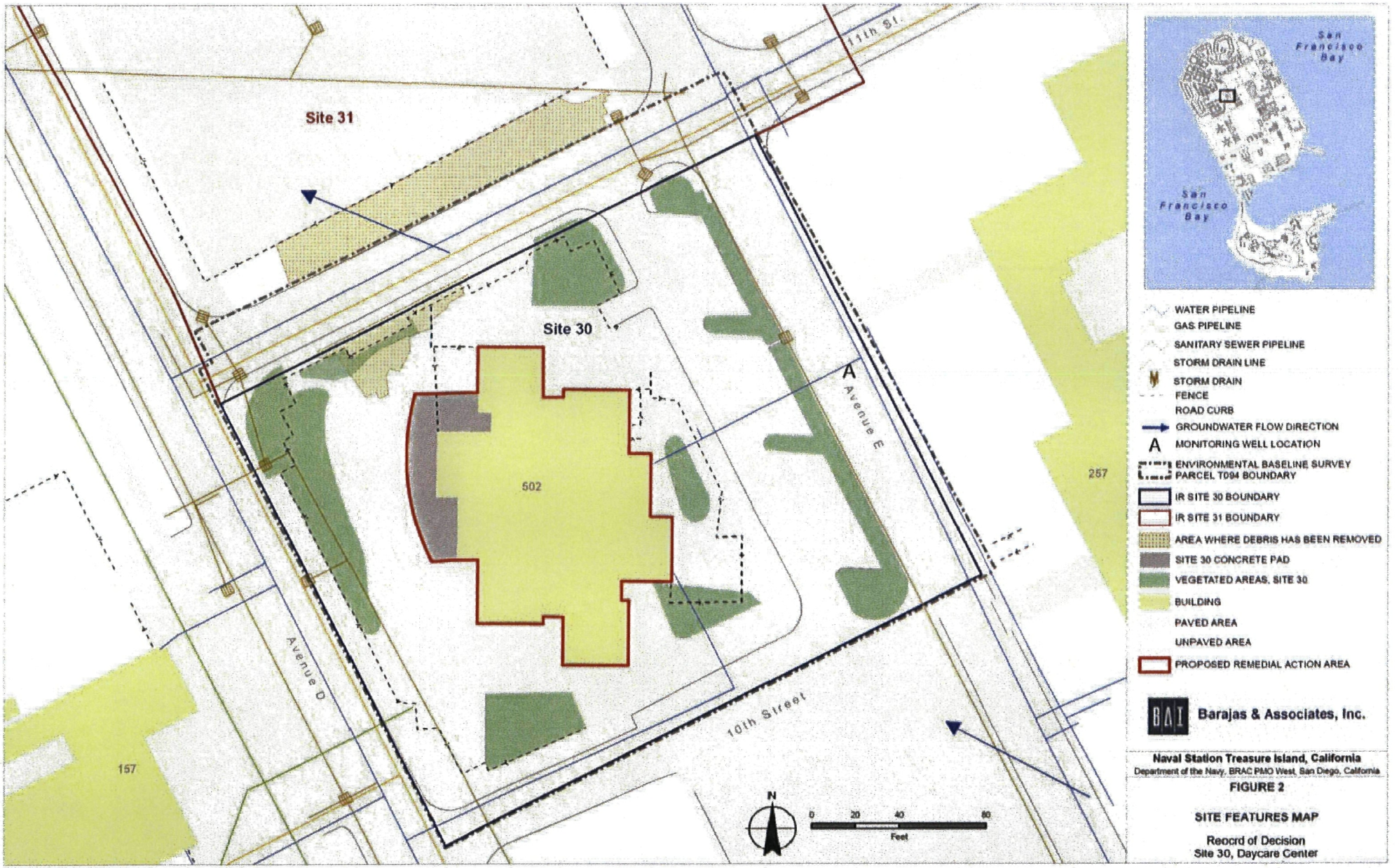
Naval Station Treasure Island, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 1

SITE LOCATION MAP

Record of Decision
Site 30, Daycare Center

2006-03-04 V:\Projects\8171-TI\FS\FS_Fig2.mxd SULLIVAN SD AWren



Barajas & Associates, Inc.

Naval Station Treasure Island, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 2

SITE FEATURES MAP

Reocrd of Decision
Site 30, Daycare Center

N

11th St

Site 30

T094-59-1
0.6 (0.7')

T094-50-1
0.3 (0.4')

T094-29-1
34.1 (5')

T094-51-1
4.9 (0.7')

T094-52-1
0.5 (0.9')

T094-28-1
9.5 (3')

T094-53-1
2.9 (0.9')

T094-45-1
10.1 (2.3')

T094-48-1
27.7 (4')

T094-54-1
3.2 (0.7')

T094-32-1
0.3 (3.5')

T094-34-1
6.8 (3.5')

T094-55-1
3.0 (0.8')

T094-56-1
0.5 (0.6')

T094-36-1
2.4 (4')

T094-58-1
0.4 (0.7')

T094-47-1
3.2 (1.6')

T094-57-1
1.3 (0.7')

T094-42-1
0.2 (1.7')

502

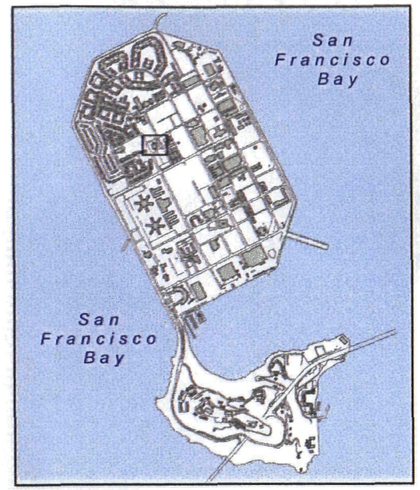
257

157

Avenue D

Avenue E

10th Street



DIOXIN IN SOIL

- DIOXIN TEQ NOT DETECTED IN SAMPLE
- DIOXIN TEQ IS BELOW 3.9 NG/KG (RESIDENTIAL PRG)
- DIOXIN TEQ IS BETWEEN 3.9 NG/KG AND 12 NG/KG
- DIOXIN TEQ IS BETWEEN 12 NG/KG AND 19.5 NG/KG
- DIOXIN TEQ EXCEEDS 19.5 NG/KG

ROAD CURB

IR SITE 30 BOUNDARY

IR SITE 31 BOUNDARY

AREA WHERE DEBRIS HAS BEEN REMOVED

SITE 30 CONCRETE PAD

VEGETATED AREAS, SITE 30

BUILDING

PAVED AREA

UNPAVED AREA

34.1 (5')
- Sample depth in feet
- Concentration in parts per trillion

Notes:
ng/kg - Nanogram per kilogram
TEQ - Toxicity Equivalent Quotient

Barajas & Associates, Inc.

20 0 20 40
Feet

The comparison criteria are 3.9 ng/kg, the residential preliminary remediation goal (PRG), 12 ng/kg, the Treasure Island dioxin ambient value, and 19.5 ng/kg, the field screening criterion.

Naval Station Treasure Island, California

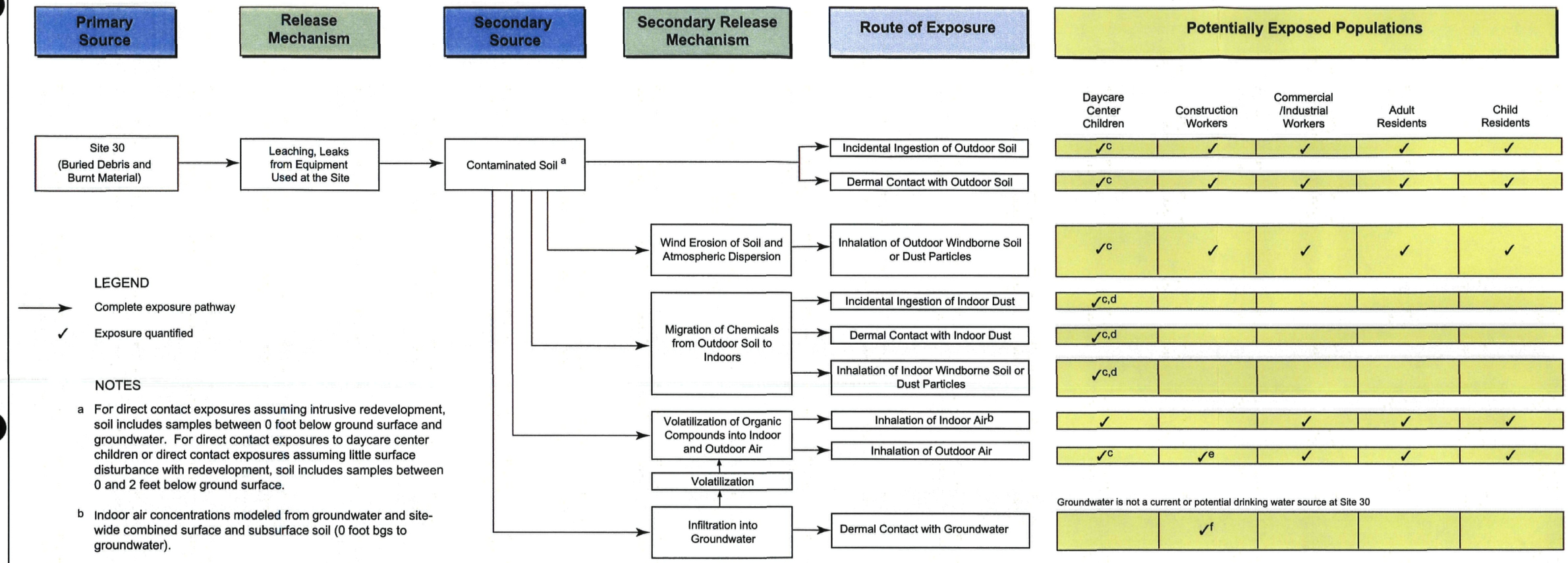
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 3

DIOXINS IN SOIL

Record of Decision
Site 30, Daycare Center

2006-05-01 V:\Projects\B171-T1\FS\Figure 5.mxd SULLIVAN - SD D. Wise



NOTES

a For direct contact exposures assuming intrusive redevelopment, soil includes samples between 0 foot below ground surface and groundwater. For direct contact exposures to daycare center children or direct contact exposures assuming little surface disturbance with redevelopment, soil includes samples between 0 and 2 feet below ground surface.

b Indoor air concentrations modeled from groundwater and site-wide combined surface and subsurface soil (0 foot bgs to groundwater).

c Direct contact exposure to daycare center children is only considered complete from unpaved areas. In an additional evaluation, direct contact exposure to daycare center children is also considered complete from the area protected by the Site 30 concrete pad. Daycare center staff are not considered separately as a potentially exposed population as exposures to daycare center children are protective of exposures to daycare staff (see Section I.8.5).

d Indoor soil exposures at the daycare center are quantified following OEHHA school site exposure guidance (OEHHA 2004).

e For construction workers, inhalation of volatiles in outdoor air from groundwater was evaluated using methods recommended by the VDEQ (2004) that take account for reduced air mixing and dispersion of contaminants while working in a construction/utility trench. Inhalation of volatiles in outdoor air from soil was evaluated using the chemical-specific volatilization factors derived by EPA Region IX in its memorandum on derivation of PRGs (2004e).

f Considering the shallow water table at Site 30, dermal contact with groundwater for construction workers involved in excavation activities is considered complete.

EPA U.S. Environmental Protection Agency

OEHHA Office of Environmental Health Hazard Assessment

PRG Preliminary Remediation Goal

VDEQ Virginia Department of Environmental Quality

References

Office of Environmental Health Hazard Assessment (OEHHA). 2004. "Guidance for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(f): Guidance for Assessing Exposures and Health Risks at Existing and Proposed School Sites, Final Report." February.

U.S. Environmental Protection Agency (EPA.) 2004e. "EPA Region IX Preliminary Remediation Goals (PRG) 2004." December. On-Line Address: http://www.epa.gov/region09/waste/sfund/prg/index.htm

Virginia Department of Environmental Quality (VDEQ). 2004. "Voluntary Remediation Program Risk Assessment Guidance." January 28. On-Line Address:

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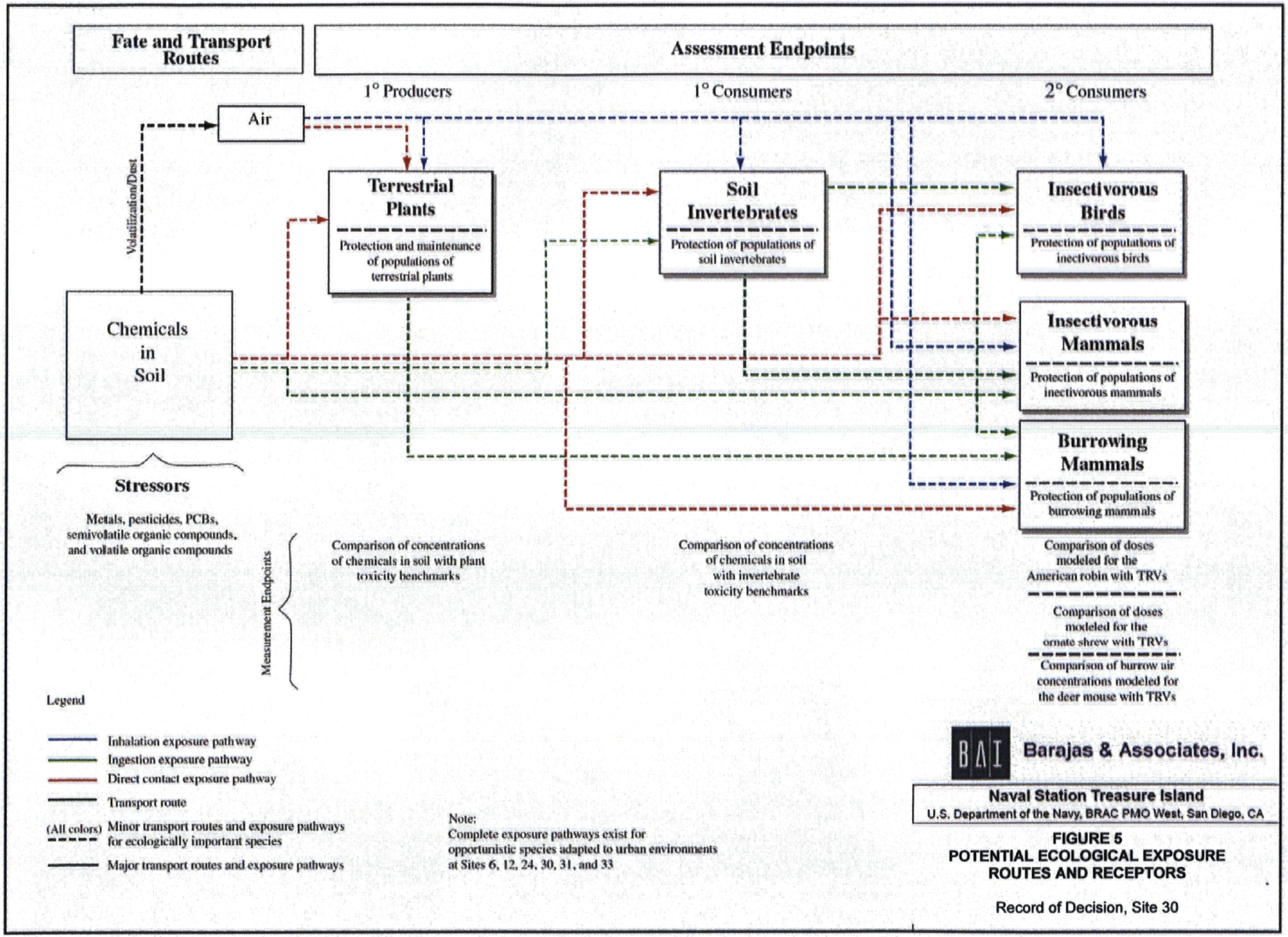
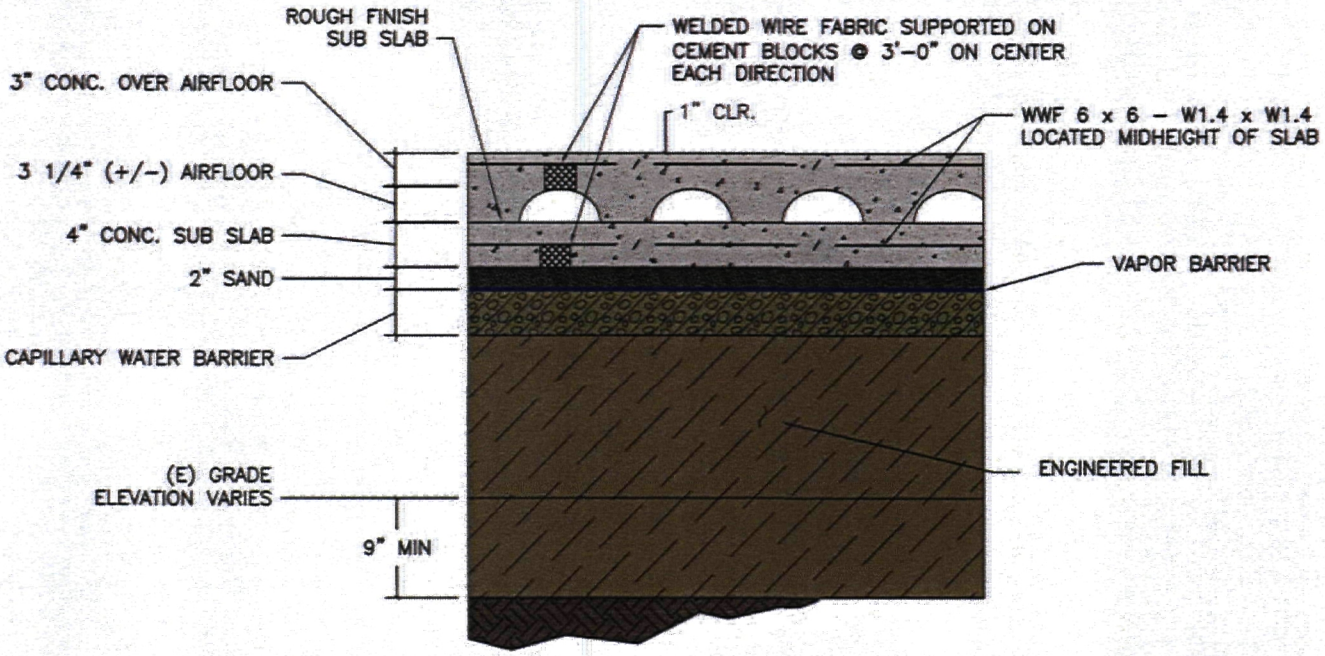
U.S. Department of the Navy, BRAC PMO West, San Diego, CA

FIGURE 4
POTENTIAL EXPOSURE ROUTES AND RECEPTORS
Record of Decision, Site 30


Fate and Transport Routes
Assessment Endpoints
1° Producers
1° Consumers
2° Consumers
Air
Volatilization/Dust
Terrestrial Plants
Protection and maintenance of populations of terrestrial plants
Soil Invertebrates
Protection of populations of soil invertebrates
Insectivorous Birds
Protection of populations of inectivorous birds
Insectivorous Mammals
Protection of populations of inectivorous mammals
Burrowing Mammals
Protection of populations of burrowing mammals
Chemicals in Soil
Stressors
Metals, pesticides, PCBs, semivolatile organic compounds, and volatile organic compounds
Measurement Endpoints
Comparison of concentrations of chemicals in soil with plant toxicity benchmarks
Comparison of concentrations of chemicals in soil with invertebrate toxicity benchmarks
Comparison of doses modeled for the American robin with TRVs
Comparison of doses modeled for the ornate shrew with TRVs
Comparison of burrow air concentrations modeled for the deer mouse with TRVs
Legend
Inhalation exposure pathway
Ingestion exposure pathway
Direct contact exposure pathway
Transport route
(All colors) Minor transport routes and exposure pathways for ecologically important species
Major transport routes and exposure pathways
Note:
Complete exposure pathways exist for opportunistic species adapted to urban environments at Sites 6, 12, 24, 30, 31, and 33
BAI
Barajas & Associates, Inc.
Naval Station Treasure Island
U.S. Department of the Navy, BRAC PMO West, San Diego, CA
FIGURE 5
POTENTIAL ECOLOGICAL EXPOSURE ROUTES AND RECEPTORS
Record of Decision, Site 30



TYPICAL AIRFLOOR SLAB-ON-GRADE SECTION
SCALE 3/4"=1'-0"

NOTES:
CONTROL JOINTS AT 15'-0" ON CENTER (MAX).

SUBSLAB JOINTS AT 30'-0" ON CENTER (MAX).

AIRFLOOR NOT USED EVERYWHERE.

ENGINEERED FILL VARIES IN THICKNESS WITH A MINIMUM OF 9".

Source: Navy. 1982. Sheet S3, Concrete Sections, for NAVSTA TI P-218 Child Care Center. NAVFAC Drawing Number 6172602. October 1982.

Barajas & Associates, Inc.

Naval Station Treasure Island, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 6

BUILDING SLAB DETAIL
Record of Decision
Site 30, Daycare Center

TABLES

TABLE 1: HUMAN HEALTH RISK ASSESSMENT SUMMARY

Record of Decision, IR Site 30, Daycare Center, NAVSTA TI, San Francisco, CA

Receptor	RME Cancer Risk Estimates		RME Noncancer HI Estimates	
	Method 1	Method 2	Method 1	Method 2
Current Land Use				
Current Site Conditions Daycare Center Child – Exposure to Soil (0-2 feet bgs, Unpaved Areas within Fence)[1] and Vapors in Indoor Air[2]	1E-09	7E-07	0.02	0.05
Altered Site Conditions Daycare Center Child – Exposure to Soil (0-2 feet bgs, Unpaved and Concrete Pad-Covered Areas within Fence)[1] and Vapors in Indoor Air[2]	1E-09	1E-06	0.02	0.3
Alternative Land Use				
Construction Worker – Exposure to Soil (0 foot bgs – groundwater, Site-wide)[1], Groundwater, and Vapors in Trench Air[3]	5E-07	1E-06	0.3	0.4
Resident – Exposure to Soil (0-2 feet bgs, Site-wide)[1] and Vapors in Indoor Air[2]	5E-06	2E-05	0.8	0.9
Resident – Exposure to Soil (0 foot bgs – groundwater, Site-wide)[1] and Vapors in Indoor Air[2]	1E-05	2E-05	1	1
Commercial/Industrial Worker – Exposure to Soil (0-2 feet bgs, Site-wide)[1] and Vapors in Indoor Air[2]	2E-06	4E-06	0.07	0.08
Commercial/Industrial Worker – Exposure to Soil (0 foot bgs – groundwater, Site-wide)[1] and Vapors in Indoor Air[2]	3E-06	5E-06	0.09	0.1

Notes:

1	Exposure to soil via incidental ingestion, dermal contact, and inhalation of particulates or vapors in outdoor air
2	Indoor air concentrations modeled from groundwater and site-wide combined surface and subsurface soil (0 foot bgs to groundwater)
3	In-trench air concentrations modeled from groundwater
bgs	Below ground surface
HI	Hazard index
RME	Reasonable maximum exposure

TABLE 2: SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

Record of Decision, IR Site 30, Daycare Center, NAVSTA TI, San Francisco, CA

Effectiveness Criteria		Alternative 1: No Action	Alternative 2: Engineering Controls Combined with ICs	Alternative 3: Building Demolition, Excavation, and Off-Site Disposal at a Permitted Landfill
Threshold Criteria[a]				
1.	Overall Protection of Human Health and the Environment	Threshold not achieved: No protection to human health and the environment would be provided under unrestricted reuse.	Threshold achieved: Protection to human health and the environment would be provided.	Threshold achieved: Protection to human health and the environment would be provided.
2.	Compliance with ARARs	Not applicable.	Threshold achieved: Meets ARARs.	Threshold achieved: Meets ARARs.
Primary Balancing Criteria[b]				
3.	Long-Term Effectiveness and Permanence	Not effective and permanent because it does not address risks to alternative land use scenario receptors.	Effective in the long-term by preventing exposure to soil beneath Building 502.	Effective in the long-term by removing the contamination beneath Building 502 from Site 30 to a permitted landfill.
4.	Reduction in Toxicity, Mobility, or Volume through Treatment	Would not reduce toxicity, mobility, or volume through treatment.	Would not reduce the toxicity, mobility, or volume through treatment, but would reduce or eliminate the risk exposure pathways.	Would not reduce the toxicity, mobility, or volume through treatment, but would reduce the volume of contamination on site by removing it to a permitted landfill.
5.	Short-Term Effectiveness	No short-term risk because no active remediation activities are proposed.	No short-term risk because no active remediation activities are proposed.	Imposes moderate short-term risks during the building demolition and excavation.
6.	Technical Implementability	Readily implementable.	Readily implementable.	Readily implementable.
7.	Cost	$0	$782,000	$2,086,000

Notes:

a The first two criteria are threshold criteria. The selected remedial alternative(s) must meet the threshold criteria.

b These criteria are primary balancing criteria used to evaluate the alternative.

Criteria 8 and 9, Community and Regulatory Acceptance, are modifying criteria that evaluate issues or concerns the state or public may have regarding each of the alternatives.

ARAR Applicable or relevant and appropriate requirement
EC Engineering control
IC Institutional control
RAO Remedial action objective

TABLE 3: COST ESTIMATE SUMMARY FOR THE SELECTED ALTERATIVE

Record of Decision, IR Site 30, Daycare Center, NAVSTA TI, San Francisco, CA

COST ESTIMATE SUMMARY[a]

Site:	30	**Description:**	To be protective of the site occupants under current use, this alternative
Location:	Treasure Island, California		Includes engineering controls to maintain building foundation slab.
Phase:	Feasibility Study		Thirty years of ICs will begin when LUC RD is completed.
Base Year:	2006		Capital costs occur in year 0.
Date:	November 7, 2006		

CAPITAL COSTS: ENGINEERING CONTROLS COMBINED WITH INSTITUTIONAL CONTROLS:

DESCRIPTION	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost
Work Plans and Reports						
Senior Project Manager	30	HR	0	175		$5,250
Program Manager	120	HR	0	191		$22,861
Senior Staff Engineer	400	HR	0	105		$42,000
Staff Scientist	160	HR	0	75		$12,000
Word Processing/Clerical	100	HR	0	55		$5,500
Draftsman/CADD	40	HR	0	108		$4,301
Regulatory Review	20	HR	0	185		$3,695
SUBTOTAL						**$95,607**
Administrative Land Use Controls - Implementation						
Overnight Delivery, 8-ounce letter	22	EA	19	0	0	$418
Program Manager	92	HR	0	191	0	$17,527
Project Engineer	180	HR	0	185	0	$33,253
Staff Engineer	225	HR	0	162	0	$36,376
QA Officer	52	HR	0	156	0	$8,103
Word Processing/Clerical	154	HR	0	82	0	$12,668
Draftsman/CADD	368	HR	0	108	0	$39,571
Computer Data Entry	150	HR	0	74	0	$11,085
Attorney, Partner, Real Estate	30	HR	0	200	0	$6,000
Attorney, Associate, Real Estate	5	HR	0	150	0	$750
Paralegal, Real Estate	36	HR	0	100	0	$3,600
Other Direct Costs	1	LS	1719	0	0	$1,719
Surveying - 2-man crew	6	DAY	0	1643	345	$11,929
Portable GPS Set with Mapping, 5 centimeters Accuracy	1	MO	994	0	0	$994
Local Fees	2	LS	250	0	0	$500
SUBTOTAL						**$184,492**
SUBTOTAL CAPITAL COSTS IN 2006 DOLLARS						**$280,100**
Contingency		15%				$42,015
TOTAL CAPITAL COST IN 2006 DOLLARS						**$322,116**

OPERATIONS AND MAINTENANCE COSTS:

Institutional Controls						
Annual Inspections Years 1-30						
Overnight Delivery, 8-ounce letter	2	EA	19			$37
Program Manager	2	HR		191		$381
Project Engineer	4	HR		185		$739
Staff Engineer	16	HR		162		$2,587
Other Direct Costs	1	LS	1267			$1,267
SUBTOTAL						**$5,011**
Contingency	15%					$752
Navy Oversight	25%					$1,253
Regulatory Involvement	10	hr		185		$1,847
SUBTOTAL *(per event)*						**$8,862**

TABLE 3: COST ESTIMATE SUMMARY FOR THE SELECTED ALTERATIVE

Record of Decision, IR Site 30, Daycare Center, NAVSTA TI, San Francisco, CA

PERIODIC COSTS:

DESCRIPTION 5-Year Reviews	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost
Five-Year Reviews: Year 5, 10, 15, 20, 25, and 30	6					
Program Manager	40	HR	-	191	-	$7,620
Project Engineer	120	HR	-	185	-	$22,169
Staff Engineer	60	HR	-	162	-	$9,700
Draftsman/CADD	40	HR	-	108	-	$4,301
Word Processing/Clerical	60	HR	-	81	-	$4,889
SUBTOTAL						**$48,680**
Contingency	15%					$7,302
Navy Oversight						$12,170
Regulatory Involvement						$9,236
SUBTOTAL						**$77,388**

PRESENT VALUE ANALYSES:

Cost Type	Year	Total Cost	Total Cost per Year	Discount Factor [b,c]	Present Value
Capital Cost	0	$322,115	$322,115	1.0000	$322,115
Annual O&M	1-30	$265,872	$8,862	19.6004	$173,707
Periodic Cost (5-Year Reviews)	5, 10, 15, 20, 25, 30	$464,325	$77,388	3.6918	$285,702
SUBTOTALs		**$1,052,312**			**$781,523**
TOTAL PRESENT VALUE OF ALTERATIVE					**$781,523**

Notes:

a Cost obtained from RACER™ 2006 (Remedial Action Cost Engineering and Requirements™).

b Discount factor = $1/(1+i)t$ where i = 0.030 for a 30+ year technology and t = year (i.e., the present value of the dollar paid in year t at 3.0%)

c Multiyear discount factor = $[(1+i)n - 1]/i(1+i)n$ where i = 0.030 for a 30+ year technology and n = total number of years

CADD Computer-Aided Design and Drafting
EA Each
GPS Global positioning system
HR Hour
IC Institutional control
LS Lump sum
LUC Land use control
MO Month
O&M Operation and maintenance
QA/QC Quality assurance/quality control
RD Remedial design

APPENDIX A

Statement of Reasons

STATEMENT OF REASONS

NAVAL STATION TREASURE ISLAND
SITE 30 DAYCARE CENTER
RECORD OF DECISION/REMEDIAL ACTION PLAN

Pursuant to California Health and Safety Code (HSC) Section 25356.1, the U.S. Department of the Navy has prepared this statement of reasons. This statement of reasons is part of the attached decision document for the Site 30 Daycare Center at Naval Station Treasure Island (NAVSTA TI).

The Record of Decision/Remedial Action Plan (ROD/RAP) summarizes the environmental investigations and the potential risks to human health and the environment posed by Site 30. Because of the potential exposure to soil contamination, the ROD/RAP selects a combination of engineering and institutional controls as the final remedy for the site.

The attached ROD/RAP complies with the law as specified in California HSC Section 25356.1. Section 25356.1(e) requires that RAPs include a statement of reasons setting forth the basis for the removal and remedial actions selected. The statement of reasons "shall also include an evaluation of the consistency of the removal and remedial actions proposed by the plan with the federal regulations and factors specific in subdivision (d)." The remedial action is consistent with the Comprehensive Environmental Response, Compensation and Liability Act and its implementing regulations, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Subdivision (d) of HSC Section 25356.1 specifies six factors against which remedial alternatives in the ROD/RAP must be evaluated. The six factors are summarized as follows.

1. Health and Safety Risks - Section 25356.1(d)(1)

The human health risk assessment (HHRA) indicates that there is no excess cancer risk to current receptors (day care center child/worker and construction worker) above the no-action limit (1×10^{-6}). The risk to hypothetical future commercial and industrial workers is within the risk management range, with a maximum risk of 3×10^{-6} assuming exposure to surface soils (SulTech 2006b). The risk associated with residential alternative land use was within the risk management range, with a maximum risk of 1×10^{-5} and an HI of 1 to subsurface soil. Dioxin was the only contaminant of concern (COC) identified by the HHRA for the residential and commercial/industrial receptors.

2. Beneficial Uses of Site Resources - Section 25356.1(d)(2)

Site 30 was leased to the City and County of San Francisco in 1997 and has been used by Kidango as a daycare center since March 17, 2003. No known mineral, cultural, or archeological resources exist at this site.

Currently, shallow groundwater at Site 30 (approximately 5 to 7 feet below ground surface) is not used as a source of drinking water, agricultural, or industrial supply. In a letter from the Water Board to the Navy, the Water Board provided its concurrence that groundwater at

NAVSTA TI meets the exemption criteria in State Water Resources Control Board Sources of Drinking Water Resolution 88-63, but retains its designation for potential agricultural, process, and industrial supply (Water Board 2001).

3. Effect of the Remedial Actions on Groundwater Resources - Section 25356.1(d)(3)

Groundwater has not been impacted by releases of chemicals at Site 30. The shallow groundwater is not likely to be used due to poor quality irrespective of the proposed institutional controls. These actions will not impact shallow groundwater resources at the site.

4. Site-specific Characteristics - Section 25356.1(d)(4)

Site 30 consists of a trash disposal area that was identified on a 1989 utility as-built drawing. A note on the as-built drawing for the water line project identified an "old trash dump" within the western portion of the water line excavation along 11th Street between Avenues D and E (Shaw Environmental, Inc. [Shaw] 2003). Subsequently, a multi-phase investigation and removal action was conducted beginning in May 2002 to determine the nature and extent of the buried debris (Shaw 2003; 2004).

Dioxins were detected at concentrations exceeding the ambient toxic equivalence quotient (TEQ) concentration. Although the source for dioxin in the soil has not been identified, it is likely a result of burnt debris in the disposal area. A time-critical removal action was conducted in 2003/2004 to remove debris and soil from the disposal area.

Based on investigation results, dioxins were not detected in groundwater samples collected at Site 30. Dioxin has not been detected at concentrations exceeding the TI ambient TEQ levels in soil below groundwater. However, if dioxins in soil are in contact with groundwater, they are not considered volatile, tend to adsorb strongly to soil particles, and are essentially insoluble in water. In general, dioxins are retained strongly by soil and are not expected to leach to groundwater or migrate off-site to the Bay.

5. Cost Effectiveness of Alternative Remedial Action Measures - Section 25356.1(d)(5)

Based on the comparative analysis of alternatives in the ROD/RAP, the selected remedy is the most cost-effective means of protecting human health and the environment. The active remedial alternative included removal of the daycare center building and affected soil, with costs approximately three times higher than the selected alternative.

6. Potential Environmental Impacts of Remedial Actions - Section 25356.1(d)(6)

The selected remedial actions will not have significant potential environmental impacts. The remedy for Site 30 involves engineering and institutional controls, which, compared to soil removal and disposal should have no short-term impact.

A state RAP must also include a "nonbinding preliminary allocation of responsibility among all identifiable potentially responsible parties at a particular site, including those parties which may have been released, or may otherwise be immune, from liability" (HSC Section 25356.1(e)). The Navy is responsible for the selected alternatives at Site 30.

APPENDIX B

Administrative Record Index

TREASURE ISLAND NAVSTA

DRAFT ENVIRONMENTAL RESTORATION RECORD INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)

DOCUMENTS RELATED TO SITE 30

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 000118 TC.0308.10766 & SWDIV SER 06CA.JS/1041 MM N62474-94-D-7609 12	01-11-2001 **12-20-2000** 00308	TETRA TECH EM INC. VARIOUS AGENCIES	DRAFT - REMEDIAL PROJECT MANAGER AND BRAC CLEANUP TEAM (RPM/BCT) MEETING MINUTES - 11 JULY 2000 (WITH ENCLOSURE)	ADMIN RECORD INFO REPOSITORY	012 029 030	FRC - PERRIS	181-03-0181 BOX 0003 41106473
N60028 / 001151 DS.A016.10457 & SWDIV SER 06CA.JS/0633 MM N68711-00-D-0005 50	05-07-2003 **03-04-2003** DO 016	TETRA TECH EM INC. VARIOUS AGENCIES	04 MARCH 2003 DRAFT REMEDIAL PROJECT MANAGERS AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES - INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND SWDIV TRANSMITTAL BY J. SULLIVAN	ADMIN RECORD INFO REPOSITORY	012 024 030	FRC - PERRIS	181-03-0186 BOX 0004 41031802
N60028 / 001209 DS.B006.13044 & SWDIV SER. 06CA.JS/0523 MINUTES N68711-03-D-5104 12	06-09-2004 **04-06-2004** 00006	SULTECH NAVFAC - SOUTHWEST DIVISION	DRAFT MINUTES FOR REMEDIAL PROJECT MANAGER BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM MONTHLY MEETING (INCLUDES SWDIV TRANSMITTAL LETTER)	ADMIN RECORD INFO REPOSITORY	BLDG 00502 SITE 00008 SITE 00013 SITE 00027 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001196 DS.B021.13916 CORRESPONDENC N68711-03-D-5104 12	05-20-2004 **04-16-2004** 00021	SULTECH HOCH, K. NAVFAC - SOUTHWEST DIVISION	DRAFT ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN (SAP) FACILITY WIDE GROUNDWATER MONITORING PROGRAM INSTALLATION RESTORATION (IR)	ADMIN RECORD INFO REPOSITORY	SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001207 DS.B021.13918 CORRESPONDENC N68711-03-D-5104 40	06-07-2004 **05-21-2004** 00021	SULTECH SWANSON, G. NAVFAC - SOUTHWEST DIVISION	FINAL ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN (SAP) FACILITY WIDE GROUNDWATER MONITORING PROGRAM INSTALLATION RESTORATION (CD COPY ENCLOSED)	ADMIN RECORD INFO REPOSITORY	SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001234 DS.B006.13064 MINUTES N68711-03-D-5104 17	12-06-2004 **10-05-2004** 00006	SULTECH NAVFAC - SOUTHWEST DIVISION	02 SEPTEMBER 2004 DRAFT REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 00343 BLDG 00344 SITE 00002 SITE 00010 SITE 00012 SITE 00014 SITE 00022 SITE 00024 SITE 00025 SITE 00027 SITE 00030 SITE 00031 SITE 00227	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001289 BRAC SER BPMOW.LNL/0735 & DS.B021.13920 REPORT N68711-03-D-5104 800	07-18-2005 **05-01-2005** 00021	SULTECH K. HOCH NAVFAC - SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION (RI) REPORT FOR THE DAYCARE CENTER, VOLUMES I AND II OF II {CD COPY ENCLOSED}	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001310 NONE CORRESPONDENC NONE 3	12-20-2005 **07-11-2005** NONE	GEOMATRIX G. FOOTE NAVFAC - SOUTHWEST DIVISION L. LANDERS	GEPMATRIX CONSULTANTS, INC. COMMENTS ON BEHALF OF THE TREASURE ISLAND DEVELOPMENT AUTHORITY (TIDA) ON DRAFT REMEDIAL INVESTIGATION REPORT, DAY CARE CENTER [INCLUDES EXPONENT'S COMMENTS ON THE HUMAN HEALTH RISK ASSESSMENT (HHRA)]	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001311 NONE CORRESPONDENC NONE 1	12-20-2005 **07-12-2005** NONE	NAVFAC - SOUTHWEST FRIEDMAN, A. BRAC L. LANDERS	CRWQCB ELECTRONIC MAIL COMMENTS ON THE DRAFT REMWDIAL INVESTIGATION REPORT, DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001304 NONE CORRESPONDENC NONE 15	12-15-2005 **07-25-2005** NONE	DTSC - BERKELEY D. RIST NAVFAC - SOUTHWEST DIVISION L. LANDERS	COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT, DAY CARE CENTER (INCLUDES COMMENTS BY HERD DATED 7/18/05)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001312 NONE CORRESPONDENC NONE 2	12-20-2005 **07-29-2005** NONE	USEPA P. COLLINS BRAC L. LANDERS	USEPA - ELECTRONIC MAIL COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT, DAY CARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001314 NONE CORRESPONDENC NONE 28	12-28-2005 **10-11-2005** NONE	NAVFAC - SOUTHWEST VARIOUS AGENCIES	RESPONSES TO REGULATORY AGENCY COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT FOR THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001370 NONE MM NONE 15	08-02-2006 **01-10-2006** NONE	TETRA TECH EM INC. BRAC PMO WEST	10 JANUARY 2006 FINAL DAYCARE CENTER FEASIBILITY STUDY TECHNICAL SCOPING MEETING MINUTES (INCLUDES VARIOUS HANDOUT MATERIALS)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001319 NONE CORRESPONDENC NONE 5	02-21-2006 **01-24-2006** NONE	DTSC - BERKELEY D. RIST BRAC L. LANDERS	IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE DRAFT FEASIBILITY STUDY (FS)	ADMIN RECORD INFO REPOSITORY	030 PARCEL T094	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001330 DS.BO21.13922 REPORT N68711-03-D-5104 300	03-14-2006 **02-01-2006** 00021	SULTECH BRAC	FINAL REMEDIAL INVESTIGATION REPORT, DAYCARE CENTER, VOLUMES I AND II OF II (SEE AR # 1331 - BRAC TRANSMITTAL LETTER BY J. SULLIVAN)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001323 BRAC SER BPMOW.LNL/0113 CORRESPONDENC NONE 3	02-28-2006 **02-07-2006** NONE	BRAC PMO WEST SULLIVAN, J. DEPT OF FISH & GAME HUANG, C.	REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE FEASIBILITY STUDY (FS) FOR THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001324 BRAC SER BPMOW.LNL/0116 CORRESPONDENC NONE 3	02-28-2006 **02-07-2006** NONE	BRAC PMO WEST SULLIVAN, J. CALEPA YEKTA, G.	REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE FEASIBILITY STUDY AT THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001325 BRAC SER BPMOW.LNL/0112 CORRESPONDENC NONE 3	02-28-2006 **02-07-2006** NONE	BRAC PMO WEST SULLIVAN, J. AIR QUALITY MGMT - BAY AREA BROADBENT, J.	REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE FEASIBILITY STUDY (FS) AT THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001326 BRAC SER BPMOW.LNL/0117 CORRESPONDENC NONE 3	02-28-2006 **02-07-2006** NONE	BRAC PMO WEST SULLIVAN, J. CALEPA FRIEDMAN, A.	REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE FEASIBILITY STUDY (FS) AT THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001327 BRAC SER BPMOW.LNL/0115 CORRESPONDENC NONE 3	02-28-2006 **02-07-2006** NONE	BRAC PMO WEST SULLIVAN, J. DTSC - BERKELEY, CA RIST, D.	REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE FEASIBILITY STUDY (FS) AT THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001328 BRAC SER BPMOW.LNL/0114 CORRESPONDENC NONE 3	02-28-2006 **02-07-2006** NONE	BRAC PMO WEST SULLIVAN, J. DHS - SACRAMENTO DEMENT, D.	REQUEST FOR IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS) FOR THE FEASIBILITY STUDY (FS) AT THE DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001331 BRAC SER BPMOW.LNL/0139 CORRESPONDENC NONE 2	03-14-2006 **02-15-2006** NONE	BRAC PMO WEST SULLIVAN, J. VARIOUS AGENCIES	TRANSMITTAL OF FINAL REMEDIAL INVESTIGATION (RI) REPORT, DAYCARE CENTER, VOLUMES I AND II OF II (SEE AR #1330 - FINAL REMEDIAL INVESTIGATION REPORT, DAYCARE CENTER, VOLUMES I AND II OF II)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001365 NONE CORRESPONDENC NONE 2	07-21-2006 **03-03-2006** NONE	DHS - SACRAMENTO P. LEINWANDER DTSC - BERKELEY D. RIST	RESPONSE TO REQUEST FOR APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001366 NONE CORRESPONDENC NONE 9	07-21-2006 **03-17-2006** NONE	DEPT. OF FISH AND GAME C. HUANG DTSC - BERKELEY D. RIST	RESPONSE TO REQUEST FOR APPLICABLE OR RELEVENT AND APPROPRIATE REQUIREMENTS (ARARS) (W/ ENCLOSURE)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001367 NONE CORRESPONDENC NONE 2	07-21-2006 **03-17-2006** NONE	DTSC - BERKELEY D. RIST BRAC PMO WEST L. LANDERS	COMMENTS ON FINAL REMEDIAL INVESTIGATION REPORT, DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001537 NONE CORRESPONDENC NONE 14	08-12-2008 **06-09-2006** NONE	HERD - BERKELEY, CA POLISINI, J. OMF - BERKELEY, CA RIST, D.	COMMENTS ON THE COMPARISON OF HABITAT ON TREASURE ISLAND AND YERBA BUENA ISLAND (INCLUDES COMPARISON OF HABITAT ON TREASURE ISLAND AND YERBA BUENA ISLAND EMAILED 22 MAY 2006)	ADMIN RECORD	SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001373 DS.B118.20339 REPORT N68711-03-D-5104 50	08-09-2006 **07-01-2006** 00118	SULTECH BRAC PMO WEST	DRAFT FEASIBILITY STUDY (FS) REPORT FOR DAYCARE CENTER (SEE AR #1372 - BRAC PMO WEST TRANSMITTAL LETTER BY J. SULLIVAN)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001372 BRAC SER BPMOW.LU/0603 CORRESPONDENC NONE 2	08-09-2006 **07-11-2006** NONE	BRAC PMO WEST SULLIVAN, J. VARIOUS AGENCIES	TRANSMITTAL OF DRAFT FEASIBILITY STUDY (FS) REPORT FOR DAYCARE CENTER (SEE AR #1373 - DRAFT FS REPORT)	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001383 NONE CORRESPONDENC NONE 5	09-28-2006 **07-27-2006** NONE	DTSC - BERKELEY D. RIST BRAC PMO WEST L. URIZAR	REVIEW AND COMMENTS ON DRAFT FEASIBILITY STUDY (FS) REPORT, DAY CARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001374 FILE NO. 2169.6013(AF) CORRESPONDENC NONE 3	08-22-2006 **08-02-2006** NONE	CRWQCB - OAKLAND FARRES, A. BRAC PMO WEST L. URIZAR	REVIEW AND COMMENTS ON DRAFT FEASIBILITY STUDY REPORT, DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001377 BRAC SER BPMOW.LNL/0707 CORRESPONDENC NONE 1	09-05-2006 **08-14-2006** NONE	BRAC PMO WEST SULLIVAN, J. VARIOUS AGENCIES	TRANSMITTAL OF DRAFT SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT (W/OUT ENCLOSURE)	ADMIN RECORD INFO REPOSITORY	SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001378 DS.B126.20517 REPORT N68711-03-D-5104 325	09-05-2006 **08-14-2006** 00126	TETRA TECH EM INC. ROSE, C. BRAC PMO WEST	DRAFT SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT (CD COPY ENCLOSED)	ADMIN RECORD INFO REPOSITORY	SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001384 PROJECT NO. 4850.005.3 CORRESPONDENC NONE 4	09-28-2006 **08-14-2006** NONE	GEOMATRIX CONSULTANTS, INC. G. FOOTE VARIOUS AGENCIES	REVIEW AND COMMENTS ON DRAFT FEASIBILITY STUDY (FS) REPORT, DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001385 NONE CORRESPONDENC NONE 1	09-28-2006 **08-14-2006** NONE	D. SMITH BRAC PMO WEST J. SULLIVAN	REVIEW AND COMMENTS ON DRAFT FEASIBILITY STUDY (FS) REPORT, DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY SENSITIVE	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001519 NONE CORRESPONDENC NONE 2	05-29-2008 **08-15-2006** NONE	RAB MEMBER BRENNAN, N. BRAC PMO WEST SULLIVAN, J.	COMMENTS ON THE DRAFT FEASIBILITY STUDY (FS) REPORT FOR DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	SITE 00030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001399 DS.B118.20341 RESPONSE N68711-03-D-5104 20	12-05-2006 **09-21-2006** 00118	SULTECH NAVFAC - SOUTHWEST	DRAFT RESPONSES TO BCT/RAB COMMENTS ON DRAFT FEASIBILITY STUDY REPORT, DAYCARE CENTER	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001400 BRAC SER BPMOW.CP/0130 CORRESPONDENC NONE 2	12-05-2006 **11-16-2006** NONE	BRAC PMO WEST SULLIVAN, J. VARIOUS AGENCIES	TRANSMITTAL OF FINAL FEASIBILITY STUDY (FS) REPORT, DAYCARE CENTER (W/OUT ENCLOSURE) [SEE AR #1401 - FINAL FS]	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001401 DS.B118.20345 REPORT N68711-03-D-5104 120	12-05-2006 **11-16-2006** 00118	SULTECH D. RHOADES BRAC PMO WEST	FINAL FEASIBILITY STUDY (FS) REPORT, DAYCARE CENTER (CD COPY ENCLOSED) [SEE AR #1400 - BRAC PMO WEST TRANSMITTAL LETTER BY J. SULLIVAN]	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001595 TTEM-0055-FZN6-0211 MINUTES N62467-04-D-0055 34	03-18-2009 **12-19-2006** CTO FZN6	TETRA TECH EM, INC. RAB MEMBERS	19 DECEMBER 2006 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES, MEETING # 127 (INCLUDES VARIOUS HANDOUTS AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 00001 BLDG 00061 BLDG 00083 BLDG 00233 BLDG 00240 BLDG 01311 BLDG 01313 BLDG 01325 SITE 00006 SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001502 TTEM.0055.FZN6.0107 MINUTES N62467-04-D-0055 60	05-20-2008 **01-09-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	09 JANUARY 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) {INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001503 TTEM.0055.FZN6.0016 MINUTES N62467-04-D-0055 45	05-20-2008 **02-06-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	06 FEBRUARY 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) {INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS} (CD COPY ENCLOSED) [SEE AR # 1501 - BRAC PMO WEST TRANSMITTAL LETTER]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001596 TTEM-0055-FZN6-0003 MINUTES N62467-04-D-0055 40	03-18-2009 **02-20-2007** CTO FZN6	TETRA TECH EM, INC. RAB MEMBERS	20 FEBRUARY 2007 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES, MEETING # 128 (INCLUDES VARIOUS HANDOUTS AND CD COPY)	ADMIN RECORD INFO REPOSITORY	SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001504 TTEM.0055.FZN6.0009 MINUTES N62467-04-D-0055 50	05-20-2008 **03-06-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	06 MARCH 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) {INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS} (CD COPY ENCLOSED) [SEE AR # 1501 - BRAC PMO WEST TRANSMITTAL LETTER]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001428 BRAC SER BPMOW.CP/0422 CORRESPONDENC NONE 3	03-27-2007 **03-19-2007** NONE	BRAC PMO WEST SULLIVAN, J. DTSC - BERKELEY, CA WONG, H.	TRANSMITTAL OF DRAFT PROPOSED PLAN FOR REMEDIAL ACTION, DAYCARE CENTER (W/OUT ENCLOSURE) [SEE AR #1429 - DRAFT PROPOSED PLAN]	ADMIN RECORD INFO REPOSITORY	030	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001429 BAI.DS.025.00105 REPORT N68711-03-D-5106 12	03-27-2007 **03-19-2007** 00025	BAI VEDAGIRI, E. BRAC PMO WEST	DRAFT PROPOSED PLAN FOR REMEDIAL ACTION, DAYCARE CENTER (SEE AR #1428 - BRAC PMO WEST TRANSMITTAL LETTER)	ADMIN RECORD INFO REPOSITORY	SITE 00030	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001434 BRAC SER BPMOW.CP/0434 CORRESPONDENC NONE 2	04-04-2007 **03-23-2007** NONE	BRAC PMO WEST SULLIVAN, J. DTSC - BERKELEY WONG, H.	TRANSMITTAL OF FINAL SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT (SLERA) [W/OUT ENCLOSURE]	ADMIN RECORD INFO REPOSITORY	SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001435 DS.B126.20521 REPORT N68711-03-D-5104 650	04-04-2007 **03-23-2007** 00126	SULTECH ROSE, C. BRAC PMO WEST	FINAL SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT (SLERA)	ADMIN RECORD INFO REPOSITORY	SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001500 TTEM.0055.FZN6.00 11 MINUTES N62467-04-D-0055 30	05-15-2008 **04-03-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	03 APRIL 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001505 TTEM.0055.FZN6.00 12 MINUTES N62467-04-D-0055 40	05-20-2008 **04-03-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	03 APRIL 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001597 TTEM-0055-FZN6-0008 MINUTES N62467-04-D-0055 63	03-18-2009 **04-17-2007** CTO FZN6	TETRA TECH EM, INC. RAB MEMBERS	17 APRIL 2007 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES, MEETING # 129 (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 01311 BLDG 01313 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00027 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001499 TTEM.0055.FZN6.0014 MINUTES N62467-04-D-0055 30	05-15-2008 **05-01-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	01 MAY 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00024 SITE 00025 SITE 00027 SITE 00030 SITE 00031 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001506 TTEM.0055.FZN6.0015 MINUTES N62467-04-D-0055 35	05-20-2008 **05-01-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	01 MAY 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001498 TTEM.0055.FZN6.0017 MINUTES N62467-04-D-0055 30	05-15-2008 **06-05-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	05 JUNE 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, DRAFT AGENDA FOR THE 19 JUNE 2007 RAB MEETING, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 110	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001507 TTEM.0055.FZN6.0018 MINUTES N62467-04-D-0055 40	05-20-2008 **06-05-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	05 JUNE 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001508 TTEM.0055.FZN6.0021 MINUTES N62467-04-D-0055 45	05-20-2008 **07-10-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	10 JULY 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001496 TTEM.0055.FZN6.0023 MINUTES N62467-04-D-0055 70	05-15-2008 **08-08-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	08 AND 09 AUGUST 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) {INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS} (CD COPY ENCLOSED)	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001509 TTEM.0055.FZN6.0024 MINUTES N62467-04-D-0055 200	05-20-2008 **08-08-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	08 AND 09 AUGUST 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001599 TTEM-0055-FZN6-0101 MINUTES N62467-04-D-0055 32	03-18-2009 **08-21-2007** CTO FZN6	TETRA TECH EM, INC. RAB MEMBERS	21 AUGUST 2007 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES, MEETING # 131 (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	SITE 00006 SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001495 TTEM.0055.FZN6.0026 MINUTES N62467-04-D-0055 30	05-15-2008 **09-11-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	11 SEPTEMBER 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001510 TTEM.0055.FZN6.0027 MINUTES N62467-04-D-0055 40	05-20-2008 **09-11-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	11 SEPTEMBER 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001494 TTEM.0055.FZN6.0029 MINUTES N62467-04-D-0055 30	05-15-2008 **10-02-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	02 OCTOBER 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001511 TTEM.0055.FZN6.00 30 MINUTES N62467-04-D-0055 40	05-20-2008 **10-02-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	02 OCTOBER 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001493 TTEM.0055.FZN6.00 32 MINUTES N62467-04-D-0055 30	05-15-2008 **11-06-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	06 NOVEMBER 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001512 TTEM.0055.FZN6.0033 MINUTES N62467-04-D-0055 40	05-20-2008 **11-06-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	06 NOVEMBER 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001492 TTEM.0055.FZN6.0035 MINUTES N62467-04-D-0055 30	05-15-2008 **12-04-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	04 DECEMBER 2007 DRAFT MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00008 SITE 00009 SITE 00010 SITE 00012 SITE 00024 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001513 TTEM.0055.FZN6.00 36 MINUTES N62467-04-D-0055 40	05-20-2008 **12-04-2007** FZN6	TETRA TECH EM INC. BRAC PMO WEST	04 DECEMBER 2007 FINAL MEETING MINUTES, REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 000233 SITE 00006 SITE 00009 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00028 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001617 TTEM-0055-FZN6- 0112 MINUTES N62467-04-D-0055 57	06-01-2009 **02-05-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	05 FEBRUARY 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS] {CD COPY ENCLOSED}	ADMIN RECORD INFO REPOSITORY	BLDG 00233 SITE 00006 SITE 00012 SITE 00024 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001618 TTEM-0055-FZN6- 0115 MINUTES N62467-04-D-0055 48	06-01-2009 **03-04-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	04 MARCH 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS] {CD COPY ENCLOSED}	ADMIN RECORD INFO REPOSITORY	BLDG 01319 BLDG 01321 SITE 00006 SITE 00011 SITE 00012 SITE 00021 SITE 00024 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001480 BRAC SER BPMOW.CP/0313 & BAI-5106-0025-0001 CORRESPONDENC N68711-03-D-5106 17	03-25-2008 **03-07-2008** CTO 0025	BRAC PMO WEST SULLIVAN, J. DTSC - BERKELEY, CA MIYA, R.	TRANSMITTAL OF THE RESPONSE TO COMMENTS ON DRAFT PROPOSED PLANS, DAYCARE CENTER AND FORMER SOUTH STORAGE YARD (W/ ENCLOSURE) [CD COPY ENCLOSED]	ADMIN RECORD INFO REPOSITORY	SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001558 TTEM.0055.FZN6.01 17 MINUTES N62467-04-D-0055 43	12-04-2008 **04-01-2008** FZN6	TETRA TECH EM, INC. BRAC PMO WEST	01 APRIL 2008 DRAFT REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) AND CLEANUP TEAM (BCT) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 01207 BLDG 01209 BLDG 01231 BLDG 01233 BLDG 01319 BLDG 01321 SITE 00006 SITE 00012 SITE 00024 SITE 00027 SITE 00030 SITE 00031 SITE 00032	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001620 TTEM-0055-FZN6- 0118 MINUTES N62467-04-D-0055 43	06-04-2009 **04-01-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	01 APRIL 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS] {CD COPY ENCLOSED}	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 01207 BLDG 01209 BLDG 01233 BLDG 01319 BLDG 01321 SITE 00012 SITE 00021 SITE 00024 SITE 00027 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001559 TTEM.0055.FZN6.01 20 MINUTES N62467-04-D-0055 47	12-04-2008 **05-06-2008** FZN6	TETRA TECH EM, INC. BRAC PMO WEST	06 MAY 2008 DRAFT REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) AND CLEANUP TEAM (BCT) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 00343 BLDG 01123 BLDG 01207 BLDG 01209 BLDG 01231 BLDG 01233 BLDG 01321 BLDG 01325 BLDG 1321A SITE 00011 SITE 00012 SITE 00024 SITE 00027 SITE 00030 SITE 00031 SITE 00032	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001621 TTEM-0055-FZN6- 0121 MINUTES N62467-04-D-0055 47	06-04-2009 **05-06-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	06 MAY 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS] {CD COPY ENCLOSED} (CONTAINS SENSITIVE MAPS)	ADMIN RECORD INFO REPOSITORY SENSITIVE	BLDG 00233 BLDG 01207 BLDG 01209 BLDG 01231 BLDG 01233 BLDG 01319 BLDG 01321 SITE 00011 SITE 00012 SITE 00024 SITE 00027 SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001560 TTEM.0055.FZN6.01 41 MINUTES N62467-04-D-0055 81	12-04-2008 **06-03-2008** FZN6	TETRA TECH EM, INC. BRAC PMO WEST	03 JUNE 2008 DRAFT REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) AND CLEANUP TEAM (BCT) MEETING MINUTES (INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 00461 BLDG 01319 BLDG 01321 SITE 00012 SITE 00024 SITE 00027 SITE 00030 SITE 00031 SITE 00032	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001622 TTEM-0055-FZN6- 0142 MINUTES N62467-04-D-0055 82	06-04-2009 **06-03-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	03 JUNE 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, AND VARIOUS HANDOUTS] {CD COPY ENCLOSED} (CONTAINS SENSITIVE MAP)	ADMIN RECORD INFO REPOSITORY SENSITIVE	BLDG 00001 BLDG 00003 BLDG 00180 BLDG 00233 BLDG 00240 BLDG 00461 BLDG 01319 BLDG 01321 SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00027 SITE 00030 SITE 00031 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001604 TTEM-0055-FZN6-0130 MINUTES N62467-04-D-0055 27	03-18-2009 **06-17-2008** CTO FZN6	TETRA TECH EM, INC. RAB MEMBERS	17 JUNE 2008 FINAL RESTORATION ADVISORY BOARD (RAB) MEETING MINUTES, MEETING # 136 (INCLUDES AGENDA, VARIOUS HANDOUTS, AND CD COPY)	ADMIN RECORD INFO REPOSITORY	BLDG 00233 SITE 00006 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001624 TTEM-0055-FZN6-0145 MINUTES N62467-04-D-0055 85	07-01-2009 **07-08-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	08-09 JULY 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 00225 BLDG 00233 BLDG 00344 BLDG 01202 BLDG 01211 BLDG 01213 BLDG 01215 BLDG 01217 BLDG 01228 BLDG 01232 BLDG 01235 BLDG 01237 BLDG 01311 BLDG 01313 BLDG 01315 BLDG 01317 BLDG 01319 BLDG 01321 BLDG 01325 SITE 00006 SITE 00008 SITE 00011 SITE 00012 SITE 00020 SITE 00021 SITE 00024 SITE 00025 SITE 00027 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001625 TTEM-0055-FZN6-0148 MINUTES N62467-04-D-0055 55	07-01-2009 **08-06-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	06 AUGUST 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 00461 BLDG 01123 BLDG 01207 BLDG 01209 BLDG 01237 BLDG 01319 SITE 00006 SITE 00011 SITE 00012 SITE 00021 SITE 00024 SITE 00025 SITE 00030 SITE 00031 SITE 00032	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001626 TTEM-0055-FZN6-0151 MINUTES N62467-04-D-0055 48	07-01-2009 **09-10-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	10 SEPTEMBER 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 00233 BLDG 00343 BLDG 00344 BLDG 01211 BLDG 01213 BLDG 01235 BLDG 01237 BLDG 01319 BLDG 01321 BLDG 01325 SITE 00006 SITE 00008 SITE 00012 SITE 00021 SITE 00024 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001548 BRAC SER BPMOW.CLP/1024 CORRESPONDENC NONE 2	10-23-2008 **10-16-2008** NONE	BRAC PMO WEST SULLIVAN, J. DTSC - BERKELEY MIYA, R.	TRANSMITTAL OF THE 1) DRAFT, DAYCARE CENTER RECORD OF DECISION (ROD)/FINAL REMEDIAL ACTION PLAN (RAP), AND 2) DRAFT, FORMER SOUTH STORAGE YARD RECORD OF DECISION (ROD) [W/OUT ENCLOSURE]	ADMIN RECORD INFO REPOSITORY	SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001549 BAI.5106.0025.0003 REPORT N68711-03-D-5106 60	10-23-2008 **10-16-2008** 00025	BARAJAS & ASSOCIATES, INC. BRAC PMO WEST	DRAFT, DAYCARE CENTER RECORD OF DECISION (ROD)/FINAL REMEDIAL ACTION PLAN (RAP) [CD COPY ENCLOSED]	SITE FILE (SF)	BLDG 00502 PARCEL T094 SITE 00030	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001627 TTEM-0055-FZN6-0157 MINUTES N62467-04-D-0055 50	07-01-2009 **11-05-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	05 NOVEMBER 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 01211 BLDG 01213 BLDG 01235 BLDG 01237 BLDG 01319 BLDG 01321 BLDG 01325 SITE 00006 SITE 00007 SITE 00010 SITE 00012 SITE 00021 SITE 00024 SITE 00027 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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N60028 / 001628 TTEM-0055-FZN6-0160 MINUTES N62467-04-D-0055 47	07-01-2009 **12-03-2008** CTO FZN6	TETRA TECH EM, INC. BRAC PMO WEST	03 DECEMBER 2008 FINAL REMEDIAL PROJECT MANAGERS (RPM) AND BASE REALIGNMENT AND CLOSURE (BRAC) CLEANUP TEAM (BCT) MEETING MINUTES [INCLUDES AGENDA, SIGN-IN SHEET, VARIOUS HANDOUTS, AND CD COPY]	ADMIN RECORD INFO REPOSITORY	BLDG 01145 BLDG 01302 BLDG 01306 BLDG 01313 BLDG 01315 BLDG 01317 BLDG 01319 BLDG 01321 BLDG 01325 SITE 00006 SITE 00011 SITE 00012 SITE 00020 SITE 00021 SITE 00024 SITE 00027 SITE 00030 SITE 00031 SITE 00032	NAVFAC SOUTHWEST - BLDG. 1	
N60028 / 001563 FILE NO. 2169.6013 (PJ) CORRESPONDENC NONE 1	12-10-2008 **12-08-2008** NONE	CRWQCB - OAKLAND, CA JORGENSEN, P. BRAC PMO WEST SULLIVAN, J.	REVIEW AND NO COMMENTS ON 1) DRAFT DAYCARE CENTER RECORD OF DECISION (ROD)/FINAL REMEDIAL ACTION PLAN (RAP), AND 2) DRAFT FORMER SOUTH STORAGE YARD RECORD OF DECISION (ROD) [CD COPY ENCLOSED]	ADMIN RECORD INFO REPOSITORY	SITE 00030 SITE 00031	NAVFAC SOUTHWEST - BLDG. 1	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Sites	Location SWDIV Box No(s) CD No.	FRC Accession No. FRC Warehouse FRC Box No(s)
N60028 / 001630 TTEM-0055-FZN6-0194 REPORT N62467-04-D-0055 150	07-06-2009 **04-16-2009** CTO FZN6	TETRA TECH EM, INC. RASH, M. BRAC PMO WEST	DRAFT SITE MANAGEMENT PLAN (CD COPY ENCLOSED)	ADMIN RECORD INFO REPOSITORY	SITE 00001 SITE 00003 SITE 00004 SITE 00006 SITE 00007 SITE 00008 SITE 00009 SITE 00010 SITE 00011 SITE 00012 SITE 00013 SITE 00014 SITE 00015 SITE 00016 SITE 00019 SITE 00020 SITE 00021 SITE 00022 SITE 00024 SITE 00025 SITE 00026 SITE 00027 SITE 00028 SITE 00029 SITE 00030 SITE 00031 SITE 00032 SITE 00033	NAVFAC SOUTHWEST - BLDG. 1	

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No Keywords

Sites=030;SITE 00030;SITE 00030
SITE 00031

No Classification

APPENDIX C

Public Notice, Roster of Public Meeting Attendees, and Public Meeting Transcript

DECLARATION OF PUBLICATION OF
SAN FRANCISCO CHRONICLE

WESLEY MANALASTAS

declares that:

The annexed advertisement has been regularly published in the

SAN FRANCISCO CHRONICLE

which is and was at all times herein mentioned established as newspaper of general circulation in the City and County of San Francisco, State of California, as that term is defined by Section 6000 of the Government Code.

SAN FRANCISCO CHRONICLE
(Name of Newspaper)

901 Mission Street
San Francisco, CA 94103

From September 23, 2008

To September 23, 2008

Namely, on September 23, 2008

(Dates of Publication)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2008

at San Francisco, California.

Wesley Manalastas

WESLEY MANALASTAS

BOS PUBLIC NOTICES

BOS PUBLIC NOTICES

PUBLIC NOTICE

The Dept. of the Navy Announces Availability of the Proposed Plans/Draft Remedial Action Plans (PP/Draft RAPs) for Installation Restoration Sites 30 and 31, at Naval Station Treasure Island, SF, CA.

The Navy in coordination with state environmental regulatory agencies, encourages the public to comment on the PP/Draft RAPs to clean up contaminated soil at Installation Restoration Site 30, Daycare Center, and Site 31, Former South Storage Yard, located at former Naval Station Treasure Island.

Treasure Island is located in the SF Bay just north of the Bay Bridge. It was built in 1936 for the Golden Gate International Exposition, and used by the Navy from 1941 through 1997. Reuse of the property is currently coordinated by the City of SF. Investigations indicated the presence of soil contamination at Sites 30 and 31. PP/Draft RAPs have been assembled for each site providing a summary of site evaluations, including remedial investigations, feasibility studies, and human health and ecological risk assessments. The Navy proposes remedial action to address potential risks to human health and the environment.

PUBLIC COMMENT PERIOD

The Navy invites interested members of the public to review and comment on the PP/Draft RAPs during the 30-day public comment period from September 23 through October 23, 2008. Public comments must be postmarked or emailed by October 23, 2008, or submitted at the public meeting on October 7, 2008. Please send all comments and written

James B. Sullivan, Navy BRAC PMO West, 1455 Frazee Road, Suite 900, San Diego, CA 92108-4310, (619) 532-0966, Email: james.b.sullivan2@navy.mil.

The Department of Toxic Substances Control (DTSC) also invites the public to review and comment on the draft Negative Declaration pursuant to the California Environmental Quality Act (CEQA). The draft Negative Declaration finds that the implementation of the cleanup alternatives at Sites 30 and 31 would have no impact to public health and the environment. Please send written comments on the Negative Declaration to Mr. Ryan Miya, 700 Heinz Avenue, Berkeley, CA 94710-2721, (510) 540-3775, Email: rmiya@dtsc.ca.gov.

PUBLIC MEETING

The Navy will host a public meeting to discuss the PP/Draft RAPs and accept public comments on October 7, 2008, 7:00 p.m. to 8:00 p.m. at Casa de la Vista, Building 271, Treasure Island.

FOR MORE INFORMATION

Copies of the PP/Draft RAPs, Feasibility Studies, Remedial Investigations, and other site related documents are available for review at the information Repository at: San Francisco Public Library, Government Publications Section, 100 Larkin Street, San Francisco, California, (415) 557-4400 and Navy BRAC Caretaker Site Office, 410 Palm Ave., Bldg. 1, Rm 161, T.I., SF, CA 94130, (415) 743-4729. Select documents are also available on the Navy's website at: www.bracpmo.navy.mil.

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CERTIFIED COPY

FORMER NAVAL STATION TREASURE ISLAND
PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN
FOR SITE 30 & SITE 31
PUBLIC MEETING

REPORTER'S TRANSCRIPT OF MEETING

OCTOBER 7, 2008

Casa de la Vista, Building 271
Avenue of the Palms, Treasure Island
San Francisco, California

Reported by Christine M. Niccoli, RPR, C.S.R. No. 4569

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(650) 573-9339

PARTICIPANTS

FACILITATOR: JAMES B. SULLIVAN - United States Navy

PRESENTERS:
CHARLES PERRY - United States Navy (page 4)
RYAN MIYA - Department of Toxic Substances Control (DTSC) (page 26)

CONSULTANTS, REGULATORS:
SCOTT ANDERSON - United States Navy
MARGARET BERRY - Barajas & Associates, Inc.
PETER BOURGEOIS - Shaw Environmental and Infrastructure, Inc.
TOMMIE JEAN DAMREL - Tetra Tech EM Inc.
PAISHA JORGENSEN - San Francisco Bay Regional Water Quality Control Board
CHRISTINE KATIN - U.S. Environmental Protection Agency (EPA)
KYAW NAING - Barajas & Associates, Inc.
ELI VEDAGIRI - Barajas & Associates, Inc.

PUBLIC AUDIENCE:
LAVINA DE SILVA, DEB EBERHART, BART RUGO

---oOo---

TREASURE ISLAND, SAN FRANCISCO, CALIFORNIA
TUESDAY, OCTOBER 7, 2008, 7:03 P.M.
---oOo---

MR. SULLIVAN: Okay. Well, a few minutes after 7 o'clock, and so we'll get the meeting started.

I'm Jim Sullivan from the Navy, and we're here tonight for the Sites 30 and 31 Proposed Plan meeting. And we'll have a presentation on the Proposed Plan and Draft Remedial Action Plans and then also a presentation on the State's CEQA determination, and then we'll have opportunity for clarifying comments and then finally -- or clarifying questions, and then finally we'll open it up for public comment.

So we do have a court reporter here today. It's tonight. So we'd ask if you are going to speak, to, you know, please state your name and, you know, enunciate for the -- for the record so that we can accurately capture all of your questions and comments.

So at this point -- and as you walked in, you've seen we have some posters, some of which are -- will be replicated on the presentation. And so you're welcome to stay after the meeting to, you know, further look at and discuss the posters.

There are meeting materials on the back table. There's a copy of tonight's presentation as well as additional copies of the two Proposed Plans.

And then if you haven't signed in, we do ask that you do sign in. That way we can identify you as having attended and make sure that you're on our mailing list for future information.

So thank you for coming, and I'll turn the meeting over to Charles Perry, our project manager.

MR. PERRY: All right. Thank you, Jim.

PRESENTATION

BY CHARLES PERRY:

As Jim mentioned, my name's Charles Perry, lead remedial project manager for Treasure Island, and I'll be going over the Proposed Plans/Draft Remedial Action Plans for the Sites 30, day care center, and Site 31, former south storage yard. And the former south storage yard you might be more familiar with as being the playground area of the former elementary school that was out here on the island.

So let's see. Okay. This is a little snapshot of what I'll be going over: Some brief background of Treasure Island; the -- go over the Site 30 day care center Proposed Plan; Site 31 Proposed Plan and the public involvement process; schedule; the State of California CEQA, which is the -- CEQA stands for California Environmental Quality Act. So Ryan will go

over that. And then we'll take public comment, if any, on the Proposed Plans.

So the Navy -- we're out here cleaning up, but we don't just do it on our own. We actually have a whole set of partners out here.

And we basically -- it's the Department of Navy for our Base Realignment and Closure, or BRAC, Cleanup Team, called BCT, an acronym within an acronym. And that consists of the California Environmental Protection Agency, Cal EPA; Department of Toxic Substances Control, and the Regional Water Quality Control Board and then also the U.S. Environmental Protection Agency. So it's a pretty good group of federal and state agencies up here.

We also get infor- -- bring in the local reuse authority, which is the Treasure Island Development Authority, TIDA, you probably are aware of. And then we also bring the public into the process through the Restoration Advisory Board and -- and then also community involvement through public meetings such as this.

Now, Jim, would you like to give a little -- little plug on the Restoration Advisory Board?

MR. SULLIVAN: Yes.

The Restoration Advisory Board consists of the

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governmental members as well as community members. And the RAB has been meeting regularly here since 1994, and we currently have about ten community members.

And we're always looking to add additional members to the RAB for anyone interested. You don't have to -- you don't have to have specific environmental experience. You don't have to -- you don't have to live on the island. You just to have an interest in the environmental program at Treasure Island and Yerba Buena Island.

So the RAB currently meets every second month right here in the Casa on the third Tuesday of every second month. And so our next meeting is two weeks from today on October 21st, also at 7 o'clock.

And so we'd invite -- it's a public meeting. Everyone's welcome to attend. If you don't wish to be a member, you're welcome to attend as many meetings as you'd like as a member of the public. And so we would hope to -- to see more people attending the RAB meetings.

And we generally provide information on the RAB on a lot of our information sheets, and then there is also more information as well as an application on our Navy Web site.

MR. PERRY: Thank you, Jim.

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Okay. A little background. Treasure Island, as you know, it's within the City and County of San Francisco, okay, right here [Slide 4]. Treasure Island itself, the man-made portion, it was built in the '30s, and this [Slide 5] -- the larger piece is the man-made portion, and then Yerba Buena Island is the natural piece of former Naval Station Treasure Island.

Treasurer Island was initially built for the Golden Gate International Exposition, and then the Navy took over ownership in the '40s, and naval operations were shut down in the late '90s. And TIDA currently is handling reuse of the island, although it's still owned by the Navy.

So Sites 30 and 31 [indicating]. Here's a good location. It's kind of hard to read that, but they are located fairly central part of the island.

Here's future site reuse. We looked at the 1996 reuse plan. That was what we had for a while. There's a newer version of the reuse plan. But as we're going through our CERCLA process, which is a long path, we need to -- we have milestones.

And so at the time, this was what was available, so we used it. And it showed Site 30 and 31 as being residential open space, which is -- pretty much, I believe, coincides with the current reuse plan.

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And for the immediate future, the day care center is projected to stay a daycare center; and the elementary schoolyard has similar-type uses, Boys & Girls Club or activities that are in that area. But the school itself as an elementary school was closed down in the base.

So the purpose of the Proposed Plan and the Remedial Action Plan: What the Proposed Plan does is it presents the Navy's preferred cleanup alternative. What we do in the process -- we go through the CERCLA process -- is: We -- at the feasibility study phase, we look at a bunch of different alternatives. And in the Proposed Plan, we summarize that and present it to the public to get input on those alternatives.

And so it's the second line. And then the comments that we receive on the Proposed Plan, both written as well as any verbal comments we receive tonight, we -- we put it into a responsiveness summary, and that is published in the Record of Decision, or ROD.

The Remedial Action Plan is for the Cal Health and Safety Codes, a state requirement; and it's for bases that are not on the National Priorities List. And so Treasure Island is -- is not on the National Priorities List, so we do this Remedial Action Plan

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requirement. It has some similar aspects to the Proposed Plans, so we're able to merge the two documents fairly well.

Let's see. Yeah. As it mentions there, we are presenting them together.

And this is the same process that's up here. It's just in a different format. We go through initial site discovery; and we can do some initial, you know, preliminary assessment work, which is looking at historical documentation, looking at aerial photographs.

If it were determined that we need to move forward to go into remedial investigation, we do soil sampling, groundwater sampling, get information from there, do risk calculations. And then, if need be, we move into the feasibility study where we actually look at different alternatives. And you'll see in slides that are coming up the actual alternatives that we look at.

And then the Proposed Plan, which is where we are at currently, we present those -- summarize those alternatives, present them to the public, get input on that.

And in the Proposed Plan, we're presenting what our -- what we think -- which remedial alternative we

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think we should go into the field with, and then that's documented in the Record of Decision.

Then the remedial design is the next phase where we actually do a work plan for the project and then -- and then do the pro- -- the remedial action is actually going into the field; or if it's institutional controls, there's other processes for that that we'll go into. And then five-year review.

So some of you -- or most of you, hopefully, saw the Proposed Plan. This is the cover page for Site 30. The Site 31 Proposed Plan looked very similar.

And it -- all these areas here [indicating] are -- basically, it's a summary. We summarize what we've done in previous documents up to this point and looked at -- summarize the risk assessments, looked at the remedial alternatives and then the proposed -- the preferred remedial alternative.

And these were mailed out September 16th through the 18th. And then right now we are in the public comment period for the -- both Proposed Plans.

So I got a request, actually, to go through Site 31 first. So I'm going to quickly scan through these, do Site 31 first, and then come back and do Site 30.

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MS. EBERHART: Thank you.

MR. PERRY: You're welcome.

So I'm going to do this.

Okay. Site 31. And as I know some of you were looking at the figures and boards that we have up around here, this [Slide 20] is the area that we're looking at for Site 31. The day care center is actually -- here's the northern part of that building, and this is 11th Street, Avenue E, and Avenue D. And this is the schoolyard, the elementary schoolyard in this area here [indicating].

So you'll notice that we have five debris areas, A through E. And as I walk you through the different alternatives that we looked at, it ranges from no action to digging all of these debris areas out and removing them from the base.

So moving forward. Background summary: The reason why we call it the South Storage Yard is the Navy used to use it as a storage yard in the '70s. At one point, the site was paved over and developed as an elementary schoolyard.

And then the way we found what we call Site 31 is: There was an as-built drawing that we located in 2002 which has a little -- you know, written on there is a "trash dump" near a utility line on 11th Street.

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So 11th Street . . . Where am I here. Here. Here's 11th Street [indicating]. So when we saw that, we basically went out and did some investigation and determined that there was material there, and we labeled Sites 30 and 31 based on that.

So here [Slide 22] are some of the activities we did. It was that initial investigation we did based on seeing that as-built drawing. We did trenching investigation in the area. We also did a time-critical removal action which . . . , let's see. Actually, let me -- let me back up a couple.

This area here [Slide 20], these kind of tannish-colored strips, this was that time-critical removal action. We actually went out and excavated in these two -- in these two areas previously. And these were in the areas that didn't have paving at that time. So it was felt that there was potentially an exposure pathway because we have soil there, so now you'll see we're looking at in these paved areas going out and doing some additional work.

So I was . . . Here we go [Slide 23].

So as part of the process during the remedial investigation, we look at human health risk assessment. And I'm not going through all of this, but basically, you collect data. You develop the chemical of potential

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concern out there, and then you do some assessments, risk assessments, based on that.

One thing to take out of this is we did two different calculations: one with asphalt pavement and then one without asphalt pavement.

So, basically, as it is currently, or if anyone came out and pulled off the asphalt and made like a grass field out there, what would be the risk for both of those situations? So here is the risk, and this is if asphalt pavement were removed. So this is not the existing condition.

But what we did is with cancer risk for the elementary school child/staff and construction worker, the risk was basically within the risk management -- risk management range, which is 10 to the minus 6 and 10 to the minus 4.

Another way of looking at that 10 to the minus 6 and 10 to the minus 4 is: 10 to the minus 6 is basically 1 in a million, and 10 to the minus 4 is 1 in 10,000; and so it's a little bit easier way to wrap your head around what those numbers are.

We also looked at -- this is basically the current usage that might happen at the site. The hypothetical future use is in -- you know, there was commercial or industrial worker at the site or child or

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adult resident so if someone built a house in that area.

And so for there we are within the risk management range for -- I'll step back a little bit. There's two different methods for risk calculations, the federal and the state. So for the federal, we were within the risk management range; and for the state, we were above that risk management range. So basically, it was more than 1 in 10,000 risk.

So noncancer hazards: We were below the hazard index threshold of 1, just another calculation we do, and this was for every -- everyone except for the hypothetical resident and commercial/industrial worker.

And the chemicals of concern at the site are dioxins, benzo(a)pyrene, and lead. One thing to point out, as I mentioned before, this was for a- -- with the asphalt pavement removed.

So with the pavement there, there is not an exposure pathway at the site. So there's not a risk for current folks that are out at the site or that may be on the site.

We also look at ecological risk. And both for 30 and 31, just due to the nature of Treasure Island, lot of paved areas and structures, it's not significant wild habitat. And as far as groundwater, there

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wasn't -- we didn't see the risk in groundwater that were contaminants flowing into the bay, which would be protection of the marine receptors. So there wa- -- both those pathways were -- weren't -- there wasn't an issue.

So here's the risk summary [Slide 26]. Basically, for each alternative, looking at current site usage or potential site usage and then the hypothetical future use, we look at these different areas and determine what chemicals of concern they are.

And here you'd know with asphalt there's no chemicals of concern 'cause there's not an exposure pathway. If you remove the asphalt, these are the chemicals of concern that were present.

And then as the alternative land uses, then you see some of these other ones, like lead end up coming into the equation.

So here we develop remedial action objectives for the site. Now, this is -- you know, there's a lot on the slides, so I'm not going to go through everything. But again, for each of those potential exposure scenarios for elementary school, construction worker, recreational, and a couple more, the commercial/industrial and residential receptors, which would be future land use, we developed these remedial

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action objectives [Slide 27].

But one thing to pull out of it, one of the most conservative ones we have is the residential receptors, which is really where we're looking at and moving forward in this process.

And here's [Slide 29] the alternatives that I discussed. We had five of them for this site. There's always -- We always look at a no-action alternative when we're looking through these. You want to have a baseline to compare the others against. And then also if we ever have, you know, action alternatives, we're also required to look at a complete removal alternative so there would be no risk.

And so then in between those two, the extreme is on the other end. We have the other alternatives. Here's one: engineering controls combined with institutional controls. And basically, engineering control could be the asphalt that's out there. So maintaining the asphalt would be an engineering control.

Institutional controls are deeds and restrictions that are -- that were put on the property so that if you transfer the property or sell the property, that goes along -- the restriction goes along with it. So if you had a restriction that said you

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cannot put a house -- build a house on this piece of property, that restriction would go along, and you wouldn't be able to get a permit to build a house on that piece of property.

Alternatives 3 and 4 are just variations of the excavation. You saw there was those five different debris areas. So these we're digging up a couple of them and not digging some other ones but digging at different depths. But those aren't as important because what we're proposing here is Alternative 5, which really is digging up all five of those areas down to 6 feet, and so it's complete removal.

Our goal is when we get finished with the project is to walk away from the site and there would be no further risk at the site.

And so this [Slide 30] follows along. Yeah. Basically, we want one year for implementation, and that considers a work plan stage where we're developing what we're actually going to do in the field and the actual project as well as the closure reports that are done after that.

Now, are there any clarifying questions?

One thing that we're going to do is at the very end of the presentation, we're going to take public comments that would -- that we're going to take down,

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the stenographer's going to take town, so that we can then respond to those in the Record of Decision.

But now if anyone has a question just on the presentation I've given so far, I can clarify. However, since you guys are leaving, I would say that if you want to make any public comments, you can go ahead.

MS. EBERHART: We can write our comments, right?

MR. PERRY: Yeah. There's forms in the back, which are -- we have for -- you can write on later and mail them in. You can E-mail us. You can fax us. You can call -- you know.

MS. EBERHART: Or we can get involved.

MR. PERRY: Yes. There's a lot of different ways to give comments, so . . .

MS. EBERHART: Thank you.

MR. SULLIVAN: Oh. Yeah. I'd just like to note that the actual Proposed Plan document has its own built-in comment form --

MS. EBERHART: Oh.

MR. SULLIVAN: -- on the -- on the last page and provides information for how to mail or fax that in.

And then as Charles mentioned, we also brought some separate comment sheets here tonight. Or, I mean,

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you can use -- you can -- you can write -- I mean, you can write a comment on anything and send it to us. It doesn't have to be on -- you know, on this specific form.

MR. PERRY: And if you grab a copy of the presentation that's on the table back there, there's some slides in the back that have both Jim and my contact information as well as Ryan with the DTSC for any other comments on these specific documents.

MS. EBERHART: Thank you.

MS. DE SILVA: Thanks very much.

MR. PERRY: Yeah. Well, thank you for coming.

And okay, let me see. It might be easier to . . .

Site 30, day care center. This site is located basically -- here it is [Slide 10]. It's located just below Site 31. So the site -- Site 31 that we just discussed is up here [indicating]. Here's that, the playground area; and here's 11th Street, and then the day care center is down below.

As we go through this site -- or the presentation, you'll see that this blue area is the actual boundary at the site, this blue line. It's kind of hard to see.

But the remedial action that we're talking

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about here is -- in relation, it's red outline, which is the building foundation as well as this concrete pad that is off on the side. And it's kind of hard to see. It's dark. But there's a concrete pad [indicating] that's adjacent to the building.

So background summary [Slide 11]. It was constructed -- The day care center was constructed in 1985 by the Navy. It was closed in 1997, and then it was leased to TIDA and reopened in 2003.

So again, along with Site 31, the discovery of this area was found at the same time. It was that as-built drawing that had the "trash dump."

And so some of the same CERCLA activities were done, the trenching investigation and the time-critical removal action. Because the sites are adjacent to each other, they apply to both. And then we did a separate remedial investigation and feasibility study for the site.

So for the human health risk assessment, there's some of the same things we looked at for Site 31. So I won't go through all of these.

Let's see. Yeah, this is basically the same slide.

So for the health risk assessment, cancer risk, we looked at risk of the day care center child, adult,

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and construction worker; and everything was below the target cancer risk range of 1 in a million and -- to 1 in 10,000.

And then we also looked for future hypothetical commercial/industrial worker and child/adult residents on this site.

Let's see. Oh, yeah. So for the future risk, it's within the risk management range. So it's within that 1 in a million and 1 in 10,000.

For noncancer for all receptors were below the hazard index of 1. And dioxins were identified as the risk drivers. So that's our chemical of concern. And dioxins are a by-product of combustion. So we think it's in that trash dump there was some burning of the material which created that dioxin.

And dioxin's fairly ubiquitous. Anytime you have forest fires, brush fires, if you went out and sampled those areas, you would find dioxin. But it can be hazardous at fairly low level.

This is basically the same ecological risk [Slide 14], same area. So no difference here for Site 30.

So our remedial action objectives for this site was basically for the day care center receptors, which is the current use. And so look at prevention of

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ingestion and contact with the soil containing the dioxins beneath the building.

And for our commercial/industrial receptors, it's looking at preventing again ingestion and direct contact with the soils below the building and below the concrete pad adjacent to it.

So for this site, we have three alternatives: again, the no action alternative, which we always do, as well as the other end of the spectrum, which is building demolition, complete excavation, off-site disposal at a permitted landfill.

And then the alternative in the middle, which is the engineering controls and institutional controls, similar to what I discussed for Site 31 as one of the alternatives. And here the engineering controls is the -- maintain the building foundation. So that is an engineering control. If you don't dig through or cut through that foundation, you won't have exposure to the soil beneath it.

And institutional control is the covenants and deeds. So if the property transfers; if a worker wants to go in and, say, put in some -- what am I thinking of -- plumbing work, they have to dig down through the foundation and get into the soil; and there are certain procedures they are going to have to follow in order to

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do that.

So . . . ah, this [Slide 17] is something that applied to the other one, but it's early in the slide. But when we look at alternatives, we go through the EPA's nine evaluation criteria; and they are categorized as threshold criteria, balancing criteria, and then modifying criteria.

And so we have looked at all the 1 through 7 and -- well, actually, 1 through 8 state and regulatory acceptance; and then right now we're looking at Criteria 9, which is community involvement -- or community acceptance. So . . .

So our preferred alternative is Alternative 2, which is engineering controls and institutional controls. And so it meets up -- it meets our remedial action objectives by protecting the day care center children and adults and maintaining that foundation and then protecting the potential and future construction workers and residential or industrial workers by the deed restrictions.

So our controls that we are going to set up are monitoring the integrity of the building slab, so periodic inspections, and then the restrictions that we talked about.

And then we have what's called five-year

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reviews that when you -- whenever you leave contamination in place, you have to do five-year reviews that go out and ensure that what you -- what you put in place has actually been maintained; or if site conditions change, you might need to go out and reevaluate your -- your remedial goal -- or remedial objective.

Are there any clarifying questions on Site 30 Proposed Plan?

(No verbal response heard.)

All right. I'll move through.

Okay. So now we get to the public involvement part for both Sites 30 and 31 Proposed Plans. These [Slide 32] are just the general steps. In a subsequent slide, I'll show you the dates for this project.

But we need to public -- publish a notice in the paper. So the San Francisco Chronicle would be an example, depending on where the -- where your base or your site is.

The Proposed Plans are made available for review in the information repositories, and we do have information repositories: one located here in Building 1 on Treasure Island as well as one in San Francisco public library.

The 30-day public comment period; public

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meeting, which is what we're having tonight; and then a transcript of the public meeting is produced, and then the responsiveness summary that I mentioned before is developed and is put as an appendix in the record -- in the Record of Decision.

So for these sites, we published that notice in the San Francisco Chronicle on September 23rd, and the public comment period is September 23rd through October 23rd. And that's important so that if there's any comments that you want to submit, if you fill out the forms or you speak tonight, you can get those comments in, and then they will be put in the responsiveness summary; they will be in the Record of Decision.

However, if there's comments received after that, you know, we all -- we'll always take that into consideration. It just wouldn't be able to be put into the Record of Decision.

And then public meeting we have here is October 7th, which is tonight. And then we will be finishing up that responsiveness summary in October, preparing the Record of Decision and the Final Remedial Action Plan in the rest of the year 2008 doing the Remedial Design, also known as a Remedial Action Work Plan, in 2008 and then taking the remedial action in

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early 2009.

So I'm going to have Ryan Miya from the Department of Toxic Substances Control come up and go over the California Environmental Quality Act, information he's done for these sites.

MR. MIYA: Thank you, Charles.

PRESENTATION

BY RYAN MIYA:

So as Charles said, my name is Ryan Miya. I'm the project manager for the Department of Toxic Substances Control, and I'm going to talk to you today about the California Environmental Quality Act, otherwise known as CEQA.

And basically, this is a law that was passed in 1970, and the law requires disclosure and consideration of the effects of the proposed activities, the activities that Charles just talked about, the effects of those proposed activities on the environment, identification and development of the ways to avoid or reduce environmental damage, and then finally documentation of the findings, not only for the public, folks like yourself, but also for other agencies and decision-makers as well.

So in order to comply with the CEQA regulations, we have prepared documents in this case.

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One of them's called an Initial Study, and a Draft Negative Declaration is the other document.

And these CEQA documents are also useful as we work with other agencies to make sure that we meet the requirements of other related environmental laws and regulations, and some of those other laws and regulations are the federal and state Endangered Species Acts as well as the Clean Water Act.

And so in the initial study, we describe the existing environment in the project area, and we identify the sensitive natural and cultural resources, describe the project activities that may affect them, and then evaluate what can be done to protect people in the environment from the harmful effects.

And so some of categories of things that are analyzed as a part of the CEQA impact analysis are described here. And there's actually quite a few more activities that are analyzed as a part of the CEQA document, but this is just a few of the categories that are analyzed: air quality, biological resources, cultural resources, hydrology and water quality.

And so we try to evaluate the project's potential impacts on the air quality, on the -- the soils, and -- and on plants and animals and their habitats.

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And some of these impacts -- these general topics have already actually been discussed in quite detailed nature by Charles. But, you know, even though CEQA itself is kind of a separate process, we can make use of the existing information that we already have in some of the documents that -- that have already been prepared as part of the process that Charles was talking about.

So basically in terms of public involvement, the public involvement is a very important part, especially an essential part, of the CEQA process. And so by working together, we can exchange information and identify and solve some potential problems and make sure that our analysis is as accurate as possible.

And so we appreciate folks taking the time and effort to come out here and be informed and involved, and we would like to continue to invite you to participate in this process with us.

And so if you have any input that you believe we should be considering as a part of the CEQA analysis, you can call or E-mail me. You can fill out the comment forms that also Charles referenced to as well. And all the -- all the comments that we receive during the public comment period are going to have responses that we will provide during this public review period.

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And so the way that you can be involved with public involvement process is to be in attendance at this -- at meetings like this. You can have your name that's added to the mailing list so that you receive the publications and notices of these publications as they become available, public review.

You can also actually take a look at the documents themselves during the public and agency circulation period. I have a copy of the Draft Negative Declaration as well as the Initial Study document as well. But they're also -- primarily they can be found at the repositories that Charles also mentioned, one here at being on the island and the other one being in the San Francisco Public Library.

And then you can provide written comments on resources or issues addressed in this -- in this Initial Study and Draft Negative Declaration.

So I'll hand the presentation back over to Charles for some closing comments, and we'll take some comments. Thank you very much.

MR. PERRY: So where to submit comments: For the Proposed Plan Draft RAP, you have my contact information up there as well as Jim Sullivan, who's the BRAC environmental coordinator; and then comments on the Proposed Negative Declaration can be submitted to Ryan

Miya -- Ryan Miya.

But on both of these, if comments are submitted to any of us, we -- they will be -- we'll work with each other and develop responses to them. So send them to any or all of us.

And with that, are there any public comments?

(No verbal response heard.)

All right. Well, the meeting is drawn to a close. Thank you for attending.

(Off record at 7:39 p.m., 10/7/08.)

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CERTIFICATE OF REPORTER

I, CHRISTINE M. NICCOLI, Certified Shorthand Reporter of the State of California, do hereby certify that the foregoing meeting was reported by me stenographically to the best of my ability at the time and place aforementioned.

IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of July 2009.

CHRISTINE M. NICCOLI, C.S.R. NO. 4569

APPENDIX D

Responsiveness Summary

RESPONSES TO COMMENTS

PROPOSED PLAN FOR SITE 30, DAYCARE CENTER
NAVAL STATION TREASURE ISLAND

The "*Proposed Plan, Site 30, Daycare Center, Naval Station Treasure Island,*" was released for public comment on October 7, 2008. This document was prepared for the Department of the Navy by Barajas & Associates, Inc. No public comments on the Proposed Plan were received by the Navy. The California Department of Fish and Game submitted comments on the Proposed Plan on October 30, 2008. The comments were received after the publication of the Proposed Plan. The comments on the Proposed Plan appear below as they were received by the Navy, followed by the Navy's response to each comment.

RESPONSES TO DFG COMMENTS

Comments provided by Mr. Charlie Huang, Ph.D., Staff Toxicologist, California Department of Fish and Game, Office of Spill Prevention and Response (OSPR):

Q: OSPR appreciates this opportunity to provide guidance on the planned cleanup at NAVSTA TI. This memorandum will serve to inform the Navy of our continuing interest in coordinating any natural resource issues, as one of the designated State natural resource Trustees.
A: Comment noted.

Q: OSPR is in concurrence with the preferred remedial alternative 2 (engineering controls combined with institutional controls) for Site 30 and alternative 5 (complete removal of debris areas A, B, C, D, and E, and off-site disposal) for Site 31. We agree that the sites pose little or no risks to ecological receptors based on the screening level ERA and both alternatives will reduce possible runoff issues.
A: Comment noted.

Q: Based on current lack of habitat and an assumption that future use will not lead to significant increase of habitat, OSPR understands that little to no significant risk is posed to ecological receptors at Sites 30 and 31. If, after the removal action, the future land use differs significantly from current uses, the Navy should contact OSPR. We will evaluate the impact to ecological receptors to see if another ERA is necessary to address ecological risks to Sites 30 and 31.
A: Comment noted.

Q: Proposed Plan/Draft Remedial Plan for Site 30: Page 2. After statement "See text box "What are the Chemicals of Concern", "*on Page 3*" should be added.
A: The comments were received after release of the Proposed Plan, therefore, no changes could be made.

Q: Proposed Plan/Draft Remedial Plan for Site 31: Page 1. After comment "and at the Treasure Island Building 1 information repository" *see page 10 for information*" should be added.
A: The comments were received after release of the Proposed Plan, therefore, no changes could be made.

Q: Proposed Plan/Draft Remedial Plan for Site 31: Page 4. "Table 1 highlights the cancer risks and non-cancer hazards for receptors from Federal and State HHRAs." However, I am unable to find "Table 1" in the document.
A: The comments were received after release of the Proposed Plan, therefore, no changes could be made.

Q: Conclusions: OSPR is in general concurrence in the preferred remedial alternative 2 for Site 30 and alternative 5 for Site 31 proposed in the documents. Numerous species of marine and terrestrial birds and waterfowl may frequent NAVSTA TI. The Navy should avoid jeopardizing any birds during the removal action. If at any time during the removal action any bird is harmed and/or killed, the OSPR requests that a OSPR biologist be contracted promptly. We look forward to continued further interactions with Navy staff on issues related to Sites 30 and 31. If you have any questions regarding this memorandum or require further details, please contact me at (916)324-9805 or by email at chuang@ospr.dfg.ca.gov.
A: Comment noted.

APPENDIX E

Regulatory Agency Comments and Department of the Navy Responses

RESPONSES TO REGULATORY AGENCY COMMENTS

DRAFT RECORD OF DECISION/REMEDIAL ACTION PLAN
SITE 30, DAYCARE CENTER
NAVAL STATION TREASURE ISLAND

The Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (Water Board), U.S. Environmental Protection Agency (EPA), and Treasure Island Developmental Authority (TIDA) have reviewed the document entitled *"Draft Record of Decision/Final Remedial Action Plan, Site 30, Daycare Center, Naval Station Treasure Island"* dated October 2008. This document was prepared for the Department of the Navy by Barajas & Associates, Inc. DTSC comments on the draft Record of Decision/Remedial Action Plan were received in a letter from Mr. Ryan Miya dated December 28, 2008. The Water Board conveyed that they had no comments in a letter from Paisha Jorgensen dated December 8, 2008. USEPA comments were received in an email from Christine Katin dated December 8, 2008. TIDA comments were received from Mr. Gary Foote, Geomatrix, in a letter dated November 24, 2008. Responses to the comments are shown in Tables E-1 through E-3.

TABLE E-1 RESPONSE TO REVIEW COMMENTS - DTSC
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision, Site 30, Daycare Center, Naval Station Treasure Island
Report Date: October 2008
Reviewer: Ryan Miya, DTSC
Review Date: December 24, 2008

Comment No.	Section/ Page No.	Comment	Response
Site 30 ROD/RAP Comments			
1	Document title.	Please replace "Record of Decision / Final Remedial Action Plan" with "Record of Decision / Remedial Action Plan" throughout the document. The acronym of this document should be "ROD/RAP" instead of "ROD/Final RAP".	The title will be changed as recommended. The title "ROD/Final RAP" was a remnant of previous regulatory discussions.
2	Section 1.3 Assessment of the Sites.	It is not clear how the response action selected in Site 30 ROD/RAP is appropriate to protect the health of potential human and ecological receptors from *future* releases of hazardous substances into the environment at Site 30. Please clarify or remove that portion of the statement.	The reference to future releases will be removed from the text.
3	Section 1.4 Description of the Selected Remedy.	= Please modify paragraph three, sentence four as follows: "The selected remedy would allow for current and future use of the daycare center to continue, and would use institutional and engineering controls to maintain the building slab and adjacent concrete pad. The slab and pad would continue to serve as exposure prevention barriers for daycare center children and adults to potential contamination at the site."	= The concrete pad is necessary to protect potential future industrial/commercial or residential users, not daycare center children and adults. Therefore, the building slab would be maintained to prevent contact by daycare center children and adults, and ICs would specify that any residential or commercial/industrial use that involves removal of the slab and concrete pad would require remedial investigation and potential remedial action to address contamination beneath the slab and pad.
		= Paragraph three. Please briefly explain how institutional controls will ensure that potential commercial/industrial and residential receptors are protected from contamination beneath the Site 30 Concrete Pad and building slab (for example, by prohibiting any future activities that may disturb or alter the concrete pad and building slab without prior notification and written approval from DTSC).	= Paragraph three will be amended as follows: *"Institutional controls would ensure that potential commercial/industrial and residential receptors were protected from contamination beneath the Site 30 Concrete Pad and building slab by prohibiting any future activities that may disturb or alter the concrete pad and building slab without prior notification and written approval from DTSC."*

TABLE E-1 RESPONSE TO REVIEW COMMENTS - DTSC
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision, Site 30, Daycare Center, Naval Station Treasure Island
Report Date: October 2008
Reviewer: Ryan Miya, DTSC
Review Date: December 24, 2008

Comment No.	Section/ Page No.	Comment	Response
4	Section 1.7 – Declaration Statement and Authorizing Signature.	DTSC's signatory for Site 30 ROD/RAP is Daniel E. Murphy, P.E., Unit Chief, Brownfields and Environmental Restoration Program.	The text will be revised as recommended.
5	Section 2.9.2 – Alternative 2.	Engineering Controls subsection. = Please include a figure presenting construction specifications of the existing daycare center building slab (Building 502).	= A figure will be added.
		= The text states that maintenance of the Site 30 Concrete Pad adjacent to the Building 502 building slab is not required. However, institutional controls will restrict site occupants from removing or penetrating the exposure prevention barriers, which include both the Building 502 slab and Site 30 Concrete Pad. Therefore, Site 30 ROD/RAP should describe that institutional controls would require inspection, maintenance, and reporting of the Site 30 Concrete Pad and Building 502 building slab to ensure remedy compliance. Same comment applies to Section 2.12.2 – Description of the Selected Remedy.	= The following sentence will be added to Section 2.9.2: "The *institutional control would require inspection, maintenance, and reporting of the Site 30 Concrete Pad and Building 502 building slab to ensure remedy compliance."* A similar sentence will be added to Section 2.12.2.
		Institutional Controls subsection = An Operation and Maintenance Agreement between DTSC and the current property owner will be necessary in order to define the roles and responsibilities associated with ongoing cap operation and maintenance as well as establishing a financial assurance mechanism in accordance with Health and Safety Code section 25355.2(a), as applicable.	= The requirements for establishing a financial assurance mechanism and an Operation and Maintenance Agreement are not applicable to Federal Facility response actions. An operations and maintenance plan will be prepared as part of the remedial action design. The Navy is responsible for conducting O&M but may contractually arrange for third parties to assume responsibility for and perform the O&M and requisite Five-Year reviews.

TABLE E-1 RESPONSE TO REVIEW COMMENTS - DTSC
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision, Site 30, Daycare Center, Naval Station Treasure Island
Report Date: October 2008
Reviewer: Ryan Miya, DTSC
Review Date: December 24, 2008

Comment No.	Section/ Page No.	Comment	Response
		= The proposed Remedial Action Work Plan (RAWP) should also include specific soil management procedures and requirements that must be followed should future utility repairs and/or general building maintenance activities encounter potentially impacted soils beneath the building slab and concrete pad.	= The text will be revised as recommended.
6	Section 2.10.3 – Long-Term Effectiveness and Performance.	Paragraph three, sentence one. The text states that Alternative 2 provides long-term effectiveness and permanence under "residential alternative land use scenarios". However, it is DTSC's understanding that Alternative 2 (engineering controls combined with institutional controls) would prohibit residential land use at Site 30. The same comment applies to Section 2.10.9 – Comparative Analysis Summary, paragraph one, sentence two.	The text in Sections 2.10.3 and 2.10.9 will be revised to state that institutional controls implemented with Alternative 2 would restrict land use at Site 30 to nonresidential or daycare center uses. The text will also state that a future variance, termination or lifting of the institutional controls to allow for residential use of the property at Site 30 would require a subsequent owner to establish that the use restriction is no longer necessary or undertake any other necessary response action to eliminate unacceptable risks posed by residual contamination to protect future residential occupants. Text will be added to Section 1.4, 2.9.2, and 2.12.2 to state that future actions to alter the institutional controls will require notification and written approval from the regulatory agencies.
7	Section 2.12.2 – Description of the Selected Remedy.	Last paragraph. Please identify who will be conducting the requisite Five-Year Reviews (i.e., the Navy, current property owner(s), etc.). The same comment applies to Section 2.13 – Statutory Determinations, Summary of Five-Year Review Requirements for the Selected Remedy subsection.	The text will be revised to state that the Navy is responsible for Five-Year reviews but may contractually arrange for third parties to assume responsibility for and perform the requisite Five-Year reviews.

TABLE E-1 RESPONSE TO REVIEW COMMENTS - DTSC
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision, Site 30, Daycare Center, Naval Station Treasure Island
Report Date: October 2008
Reviewer: Ryan Miya, DTSC
Review Date: December 24, 2008

Comment No.	Section/ Page No.	Comment	Response
8	Section 3.4 – Nonbinding Allocation of Responsibility.	The following two paragraphs must be added as additional text to Section 3.4: "The sole purpose of the Nonbinding Allocation of Responsibility is to establish which Potential Responsible Parties will have an aggregate allocation in excess of 50% and can therefore convene arbitration if they so choose. The NBAR, which is based on the evidence available to the DTSC, is not binding on anyone, including PRPs, DTSC, or the arbitration panel. If a panel is convened, its proceedings are de novo and do not constitute a review of the provisional allocation. The arbitration panel's allocation will be based on the panel's application of the criteria spelled out in Health and Safety Code section 25356.3(c) to the evidence produced at the arbitration hearing. Once arbitration is convened, or waived, the NBAR has no further effect, in arbitration, litigation or any other proceeding, except that both the NBAR and the arbitration panel's allocation are admissible in a court of law, pursuant to HSC section 25356.7 for the sole purpose of showing the good faith of the parties who have discharged the arbitration panel's decision. "DTSC sets forth the following preliminary nonbinding allocation of responsibility for the former Naval Station Treasure Island: The U.S. Department of the Navy is allocated 100% responsibility."	The text will be added as recommended.

TABLE E-1 RESPONSE TO REVIEW COMMENTS - DTSC
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision, Site 30, Daycare Center, Naval Station Treasure Island
Report Date: October 2008
Reviewer: Ryan Miya, DTSC
Review Date: December 24, 2008

Comment No.	Section/ Page No.	Comment	Response
9	Statement of Reasons (Appendix A)	Subsection 3 – Effect of Remedial Actions on Groundwater Resources – Section 25356.1(d)(3). Please briefly describe how groundwater "has been impacted by releases of chemicals at Site 30" or correct the text if this is in error. = Subsection 4 – Site-specific Characteristics – Section 25356.1(d)(4). Please briefly describe 1) potential for offsite migration, 2) commingling, if present, with other contamination, and 3) site-specific soil/hydrogeological conditions which may affect contaminant movement.	= The text will be revised to state that groundwater has not been impacted by releases of chemicals at Site 30. = The following text will be added to Subsection 4: *Based on investigation results, dioxins were not detected in groundwater samples collected at Site 30. Dioxin has not been detected at concentrations exceeding the TI ambient TEQ levels in soil below groundwater. However, if dioxins in soil are in contact with groundwater, they are not considered volatile, tend to adsorb strongly to soil particles, and are essentially insoluble in water. In general, dioxins are retained strongly by soil and are not expected to leach to groundwater or migrate off-site to the Bay.* Comingling is generally discussed for sites with groundwater contamination. Groundwater has not been impacted at Site 30.

TABLE E-2 RESPONSE TO REVIEW COMMENTS - EPA
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision, Site 30, Daycare Center, Naval Station Treasure Island
Draft Record of Decision, Site 31, Former South Storage Yard, Naval Station Treasure Island
Report Date: October 2008
Reviewer: Christine Katin, US EPA
Review Date: December 8, 2008

Comment No.	Section/ Page No.	Comment	Response
GENERAL COMMENTS			
		Both RODs describe site use within the context of the Draft 1996 Reuse Plan (CCSF 1996). For Site 30 in particular, the use of Building 502 is specifically identified in the Draft 1996 Reuse Plan; however, the ROD also states that recent comments by CCSF officials indicate (the possibility) that the daycare center will be relocated. (1) Is the 1996 Reuse Plan consistent with the most recent redevelopment plan? and (2) If the daycare center is relocated, will Site 30 be maintained as "institutional use" and will other uses be prohibited (this is not indicated in the section on institutional controls)? The IC requires investigation and/or remediation upon building demolition and removal, but it is not clear what would be required in the event of a change in use(r).	For purposes of remedy selection the Navy and the TIDA have agreed that reasonably foreseeable reuse is established by the 1996 Reuse Plan which specifically identifies Building 502 for "Institutional Use," and states that a daycare center is planned at this building (City and County of San Francisco [CCSF] 1996). The reasonably foreseeable future use of the site will be a daycare center. If the daycare center is relocated in the future, the ICs would restrict use of the site to nonresidential uses. Implementation of the ICs would include establishing conditions for obtaining a variance, or termination of the ICs based upon either a change in site conditions or additional investigation and possible remediation to permit a change in use.
ADDITIONAL COMMENTS ON SITE 30			
1.	General comment.	"CCSF" does not appear to be defined in the document, but the acronym is used in the text (e.g., on page 11).	CCSF, City and county of San Francisco, will be added to the acronym page and introduced in the text.
2.	Risk Characterization, Page 14.	This section has three bullets. Inconsistent with the first bullet, the second and third bullet do not state whether the risk was calculated with or without the concrete pad. Please consider editing for consistency.	The second and third bullets will be revised to indicate that the risks for alternative land uses were calculated assuming that the concrete pad has been removed.
3.	Contaminants of Concern for Site 30, Page 14.	Minor comment: There is a typographical error in the first sentence - "Summary" should not be capitalized.	The text will be revised as indicated.

TABLE E-3 RESPONSE TO REVIEW COMMENTS - TIDA
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision/Final Remedial Action Plan for Site 30, Daycare Center, Naval Station Treasure Island
Document Date: October 2008
Reviewer: Gary R. Foote, Geomatrix, TIDA
Review Date: November 24, 2008

Comment No.	Section/Page No.	Comment	Response
1	Section 1.7 Declaration Statement and Authorized Signature.	The last sentence in this section begins, "Furthermore, hazardous substances are present in Site 30 soils at concentrations **above unacceptable** risk levels." (emphasis added). As written, this sentence is confusing. We believe it is more correct to state that concentrations are above **acceptable** risk levels for unrestricted use, or that concentrations are **unacceptable** for unrestricted use.	The text will be changed to "above acceptable levels."
2	Section 2.2 Site History and Enforcement Activities.	The document states that "reuse of the property is currently coordinated by the City of San Francisco." It is more appropriate to state that "reuse of the property is currently coordinated by the Treasure Island Development Authority."	The text will be changed as suggested.
3	Section 2.5.1 Site Characteristics.	The first sentence of this section states that "Site 30 is bounded...to the east by Avenue E, to the south by 10th Street, and to the west by the sidewalk of Avenue D." The text should clarify whether the referenced streets are included or not included within the site boundaries.	The sentence in question refers to Figure 2, which shows the site boundaries in relation to the streets. The sentence will be revised for clarification as follows: "*Site 30 is bounded to the north by a line drawn 2 feet north of the daycare center fence, to the east by Avenue E (inclusive of Avenue E), to the south by 10th Street (excluding 10th Street), and to the west by the sidewalk of Avenue D (Figure 2).*"
4	Section 2.5.3 Investigation History.	Under the heading "NAVSTA TI and Site 30 Groundwater Monitoring Program," the first sentence states that "A Basewide groundwater monitoring program was initiated in 1994, and site-specific groundwater monitoring continues to the present." As written, this heading and first statement can be misleading. They imply that there is an ongoing groundwater monitoring program at Site	The heading and text in Section 2.5.3 will be revised to be consistent with the Site 31 ROD. The text will also be revised as recommended regarding the site wells and reference to Figure 3.

TABLE E-3 RESPONSE TO REVIEW COMMENTS - TIDA
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision/Final Remedial Action Plan for Site 30, Daycare Center, Naval Station Treasure Island
Document Date: October 2008
Reviewer: Gary R. Foote, Geomatrix, TIDA
Review Date: November 24, 2008

Comment No.	Section/Page No.	Comment	Response
		30. We believe it would be better to use heading and text consistent with those used in the draft Site 31 ROD/RAP. Additionally, the text should indicate that the two wells discussed were temporary microwells, rather than permanent monitoring wells (as implied). Additionally, the third paragraph under "Exploratory Trenching and Subsurface investigations at Site 30" incorrectly indicates that the locations of dioxin samples are shown on Figure 4. These locations are shown on Figure 3.	
5	Section 2.6.2 Resource Use.	This section discusses potential uses of groundwater resources and cites proposed Basin Plan amendments that would de-designated potential groundwater use for municipal or domestic water supply. Because the Base Plan was never actually amended, we suggest that this section also cite the Water Board's 2001 letter that indicates that groundwater at Treasure Island meets drinking water exemption criteria.	A reference to the Water Board's 2001 letter will be added.
6	Section 2.10.1	Overall Protection of Human Health and the Environment. In the last paragraph of this section, the text states, "Alternative 2 employs ECs and ICs to ensure human exposure pathways remain incomplete by (1) requiring the existing daycare center building slab remain in place and be periodically inspected, and (2) requiring any alternative future reuse of the property maintain the existing daycare center building slab as an effective exposure prevention barrier and consider soil contamination beneath the Site 30 Concrete Pad," As written, it appears that the slab will be required to remain in place for perpetuity, regardless of future reuse plans.	The text will be revised as follows: *"...(2) requiring any alternative future reuse of the property maintain the existing daycare center building slab as an effective exposure prevention barrier and consider soil contamination beneath the Site 30 Concrete Pad. Institutional controls would specify that any future plans to remove the building slab or Site 30 Concrete Pad would require remedial investigation and any necessary remediation. Institutional controls for the site will also contain provisions for making utility repairs beneath the slab."*

TABLE E-3 RESPONSE TO REVIEW COMMENTS - TIDA
Site 30 ROD, NAVSTA TI, San Francisco, California

Document Title: Draft Record of Decision/Final Remedial Action Plan for Site 30, Daycare Center, Naval Station Treasure Island
Document Date: October 2008
Reviewer: Gary R. Foote, Geomatrix, TIDA
Review Date: November 24, 2008

Comment No.	Section/Page No.	Comment	Response
		Consistent with the text in Section 2.9.2 under the subheading "Institutional Controls" for Alternative 2 and the text in Section 2.12.2 (Description of the Selected Remedy), the text in Section 2.10.0 should acknowledge that the institutional controls will contain provisions for making utility repairs beneath the slab, as necessary, and will allow for building demolition and removal pending completion of a remedial investigation and any necessary remediation beneath Building 502.	
7	Appendix A, Statement of Reasons.	The first sentence states that Site 30 is not currently used by the City and County of San Francisco. The text should be corrected to indicate that the site was leased to the City and County of San Francisco in 1997 and has been used by Kidango as a daycare center since March 17, 2003.	The text will be revised as suggested.

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AUG 11 2009

Ms. Remedios Sunga
California Department of Toxic Substances Control
Brownsfields and Environmental Restoration Program
Berkeley Office
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Dear Ms. Sunga:

SUBJECT: SITE 30, DAYCARE CENTER & SITE 31, FORMER SOUTH STORAGE YARD, RECORDS OF DECISION/REMEDIAL ACTION PLANS, NAVAL STATION TREASURE ISLAND, SAN FRANCISCO, CALIFORNIA

The final signed Sites 30 and 31 Records of Decision (ROD)/Remedial Action Plans (RAP) are provided for your information (enclosures (1) & (2)). The Navy would like to thank everyone for their continued support with these sites and the Naval Station Treasure Island Environmental Program.

For further information, please contact Mr. Charles Perry at (619) 532-0911.

Sincerely,

JAMES B. SULLIVAN
BRAC Environmental Coordinator
By direction of the Director

Enclosures: 1. Record of Decision/Remedial Action Plan for Site 30, Daycare Center, Naval Station Treasure Island, San Francisco, California, July 2009
2. Record of Decision/Remedial Action Plan for Site 31, Former South Storage Yard, Naval Station Treasure Island, San Francisco, California, July 2009

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Distribution:
Ms. Christine Katin, U.S. Environmental Protection Agency, Region IX
Mr. Ross Steenson, California Regional Water Quality Control Board
Ms. Mirian Saez, Treasure Island Development Authority
Mr. Jack Sylvan, Mayor's Office of Base Reuse and Development (w/out enclosure)
Mr. Gary Foote, AMEC-Geomatrix
Ms. Erika Richard, Director Kidango Daycare Center
Ms. Lavina DeSilva, Director Boys and Girls Club, Treasure Island
Mr. Jeff Austin, Lennar Communities
Mr. Randy Brandt, LFR, Inc.
Ms. Marcie Rash, Tetra Tech EM Inc.

Community RAB Members:
Mr. Nathan Brennan
Ms. Dale Smith
Ms. Alice Pilram
Mr. Saul Bloom, ARC Ecology